## VOLUME ONE

WORK MANAGEMENT MANUAL

SHEETMETAL SHOP VENTILATION COMPONENTS

NASSCO

including suggestions for reducing	ompleting and reviewing the collect this burden, to Washington Headqu uld be aware that notwithstanding an DMB control number.	arters Services, Directorate for Info	ormation Operations and Reports	s, 1215 Jefferson Davis	Highway, Suite 1204, Arlington		
1. REPORT DATE DEC 1983		3. DATES COVERED					
4. TITLE AND SUBTITLE			5a. CONTRACT NUMBER				
<b>Work Management Manual Sheetmetal Shop Ventilation Components</b>					5b. GRANT NUMBER		
				5c. PROGRAM ELEMENT NUMBER			
6. AUTHOR(S)				5d. PROJECT NU	JMBER		
				5e. TASK NUMBER			
				5f. WORK UNIT NUMBER			
Naval Surface War	ZATION NAME(S) AND AI fare Center CD Con 128 9500 MacArth	de 2230 - Design In	0	8. PERFORMING REPORT NUMB	G ORGANIZATION ER		
9. SPONSORING/MONITO	RING AGENCY NAME(S) A	AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)			
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)			
12. DISTRIBUTION/AVAII Approved for publ	LABILITY STATEMENT ic release, distributi	on unlimited					
13. SUPPLEMENTARY NO	OTES						
14. ABSTRACT							
15. SUBJECT TERMS							
16. SECURITY CLASSIFIC	ATION OF:		17. LIMITATION OF	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON		
a. REPORT <b>unclassified</b>	- ABSTRACT SAR	841	RESPONSIBLE PERSON				

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and

**Report Documentation Page** 

Form Approved OMB No. 0704-0188

#### WORK MANAGEMENT MANUAL

#### SHEETMETAL SHOP VENTILATION COMPONENTS

Prepared For

SNAME PANEL SP-8

MarAd Task ES8-13 (Phase III)

Prepared By

William S. Oakes Barbara J. Faison Robert L. Young

Facilities & Maintenance Department

National Steel & Shipbuilding Company Harbor Drive at 28th Street San Diego, California 92138

December, 1983

#### \*\*\* LEGAL NOTICE \*\*\*

This report was prepared as an account of government-sponsored work. Neither the United States, nor the Maritime Administration, nor any person acting on behalf of the Maritime Administration (A) Makes any warranty or representation, expressed or implied, with respect to the accuracy, completeness or usefullness of the information contained in this report or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately owned rights; or (B) Assumes any liabilities with respect to the use of or for damages resulting from the use of any information, apparatus, method, or process disclosed in this report. As used in the above, persons acting on behalf of the Maritime Administration includes any employee or contractor of the Maritime Administration to the extent that such employee or contractor prepares, handles or distributes, or provides access to any information pursuant to his employment or contract with the Maritime Administration.

### TABLE OF CONTENTS

SECTION	TITLE	PAGE
1.0	SCOPE	
1.1 1.2 1.3 1.4	Plant Area, Department, Work Center, Cost Center Products and Components Materials Operations	
2.0	STANDARD PRACTICES AND POLICIES	
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9	Care of Equipment and Work Area Quality Control and Inspection Material Service Supply and Maintenance of Tools Work Assignments Time and Production Reporting Set-Up and Tear-Down Safety Regulations Supervisory Responsibilities	
3.0	FACILITIES AND EQUIPMENT	
3.1 3.2 3.3	Production Equipment and Specifications Auxiliary Equipment Materials Handling Equipment	
4.0	LAYOUTS AND MATERIAL FLOW	
4.1 4.2 4.3	Work Areas Department or Cost Center Layouts Material Flow	
5.0	PROCESS DATA	
5.1 5.2 5.3	Derivation of Process Times Technical Processes Tool Life	
6.0	MANUAL METHODS	
6.1	Methods Description in MOST-Analyses Sheets (Separate	<u> </u>

## TABLE OF CONTENTS

SECTION	TITLE	PAGE	
7.0	STANDARD TIME CALCULATION		
7.1 7.2 7.3	Standard Data Charts How to Calculate Time Standards Manning, Crew Size, and Job Classes		
8.0	DATA SYNTHESIS AND BACK-UP		
8.1 8.2	Summary Synthesis and Analysis		
9.0	ALLOWANCES		
9.1 9.2	General Regular and Special Allowances		
10.0	STANDARDS APPLICATION		
10.1 10.2 10.3 10.4 10.5	Responsibility for Maintenance of Standards Maintenance of the Manual and Time Standards Procedure for Maintaining the Manual and Standards Distribution Responsibilities Revisions		
	APPENDICES		
	A. Glossary of Terms		

- B. Samples of Forms

#### SECTION 1

### 1.0 SCOPE

### 1.1 Plant Area. Department.

This Work Management Manual applies to the Sheetmetal Shop, Building 7, Department 011.

## 1.2 Product and Components

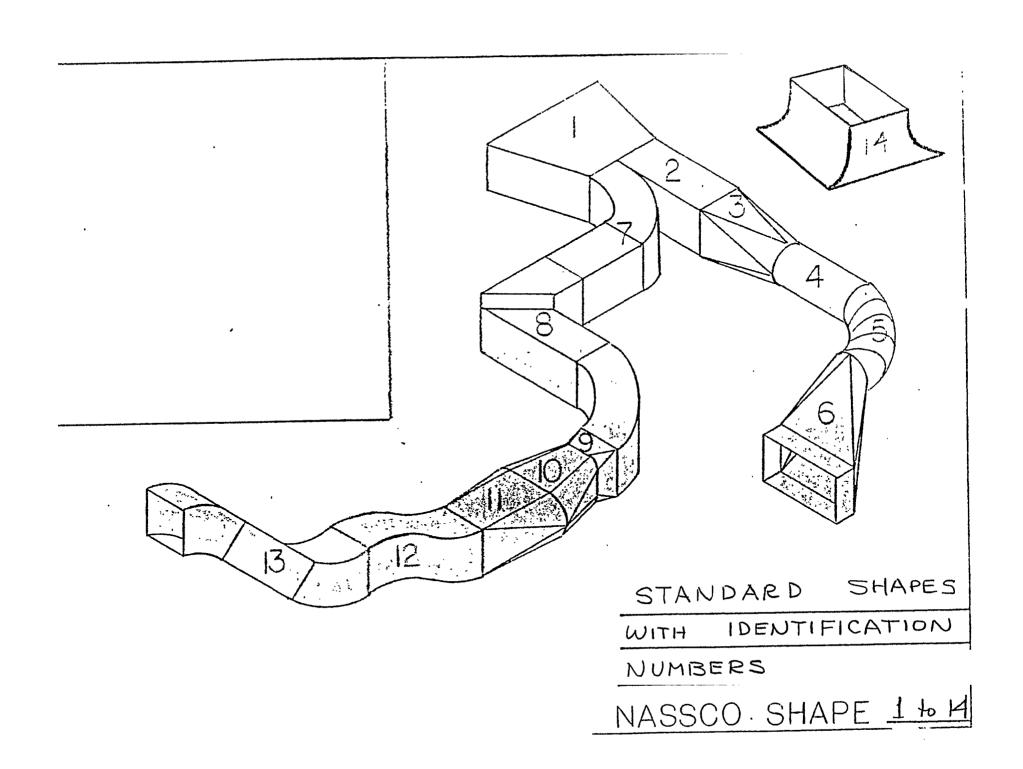
The ventilation parts produced consist of the 13 standard shapes as designated by the Sheetmetal Planning Office. Whether these shapes go to make up an assembly (called a sketch) or a "package" (all the parts in a compartment), the single unit produced in the shop is the object of this manual. Other parts produced in the Sheetmetal Shop such as stainless steel galley equipment, spools, or foundations are specifically excluded as well as installation or erection in the ship.

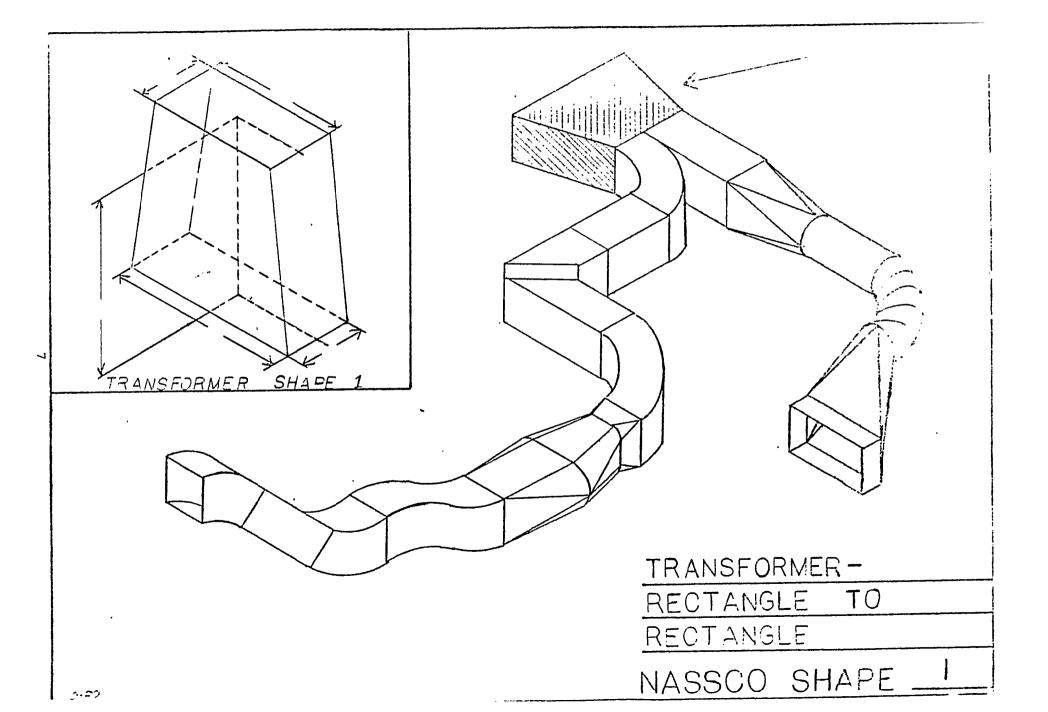
The standard shapes are listed on the following pages.

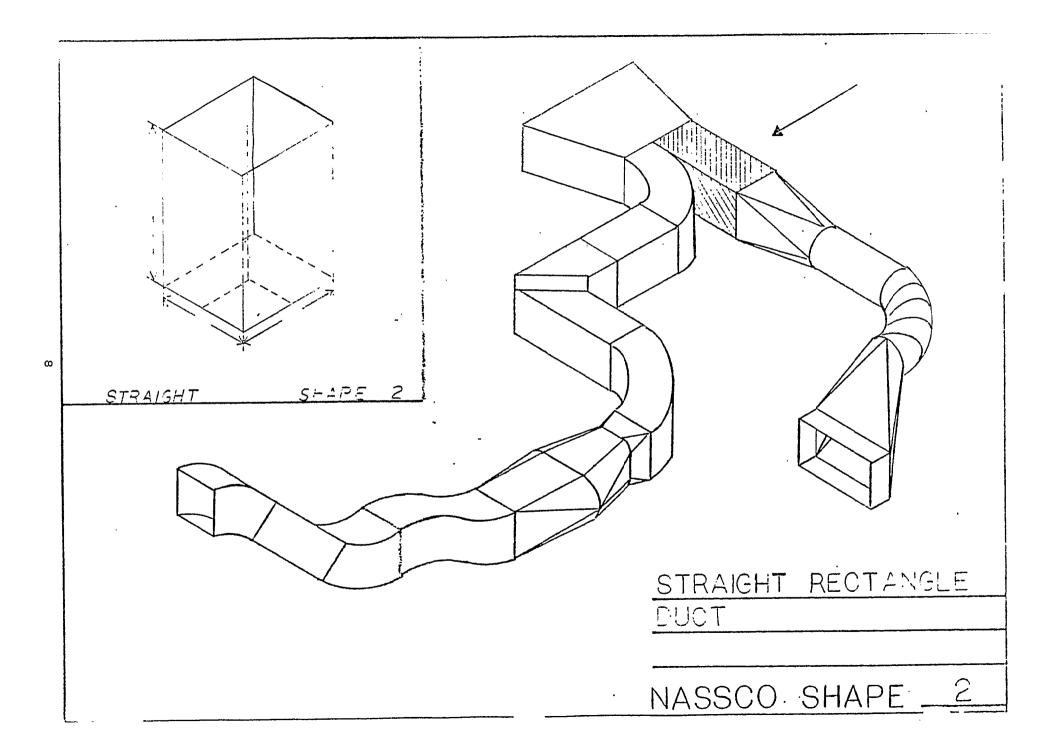
For statistical purposes, we analyzed a representative period of sheetmetal shop work and found - (out of more than 2000 shapes) the following breakdown:

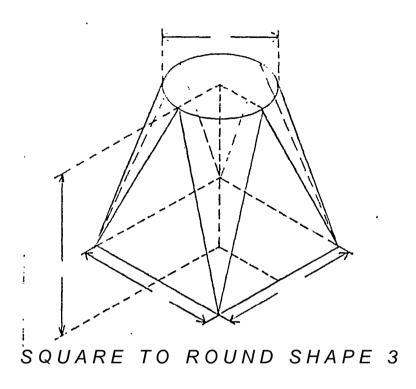
Shape	No. Name	Percent of Total
1	Transformer (rectangular)	12
2	Straight Section	38
3	Square to Round (centered)	8
4	Round Section	2 *
5	Round Elbow (5. gored)	1
6	Square to Round (off center)	2
7	Rectangular Elbow	20
8	Rectangular Elbow with Vane Track	3
9	Rectangular Transition to Radius Cor	ner <l< td=""></l<>
10	Flat Oval to Radius Corner	<1
11	Square to Flat Oval	7
12	O-Gee, Rectangular	6
13	Offset, Rectangular	1

<sup>\*</sup> Most round section vent is made from purchased round spiral duct.









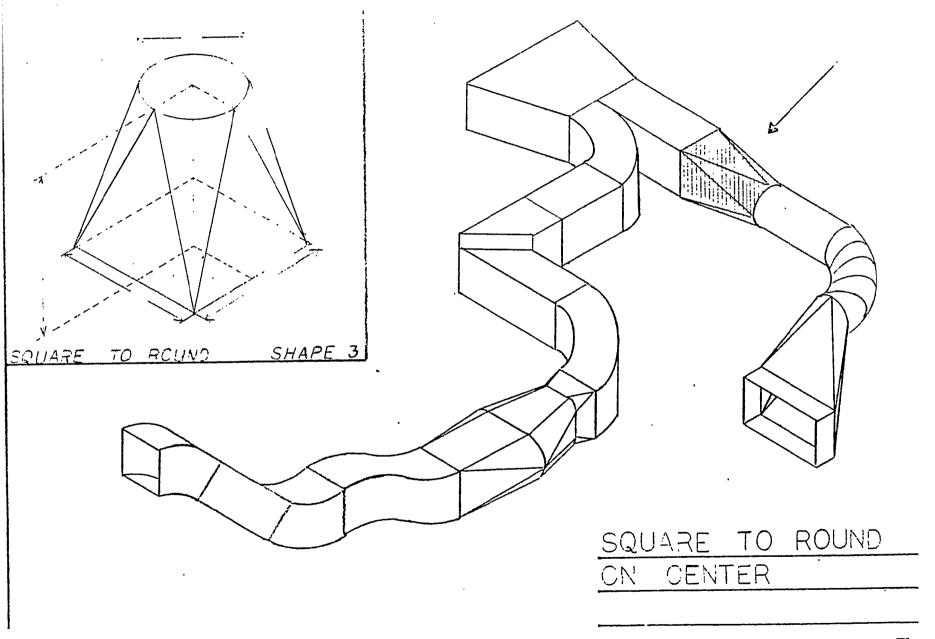
# OLD METHOD befor CNC

# NEW METHOD with CNC

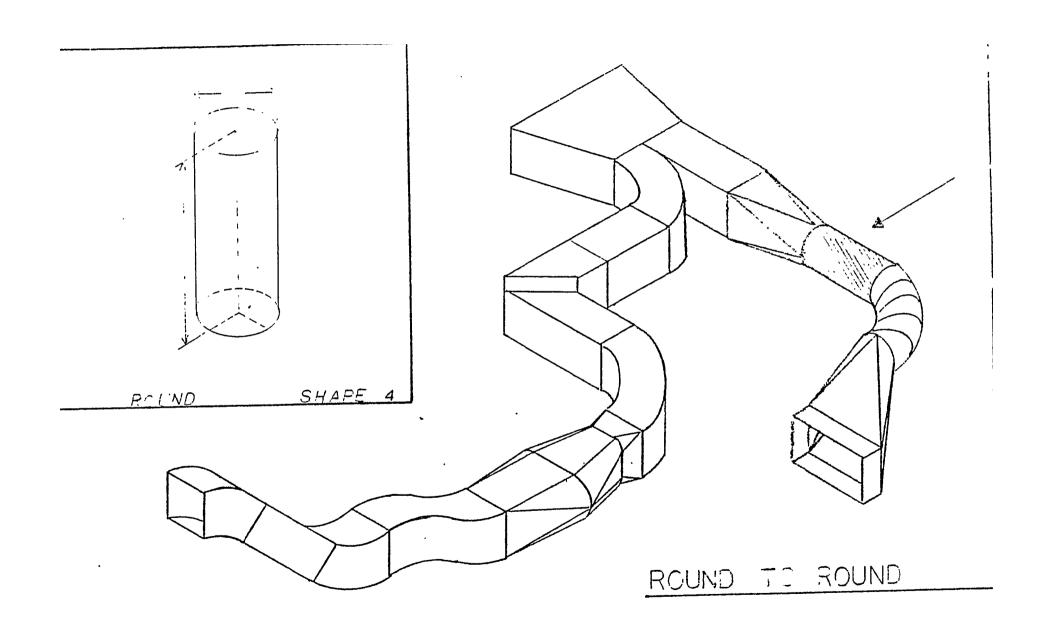
50101 0110			With Oilo		
Time required to			CADCAM time required to sketch	10 m	in
Time required to			Job accomplished by programer		
Time required to			Programer time required	<b>25</b> m i	in
Time required to	cutout 15	min (	CNC time required to cutout	6 m	in
	Total 95	min	Total	41 m	in

There is an approximate 57% saving in **overall** time in this portion of the comstruction. The time required to assemble remains close to the same. It will require an extended study to evaluate the effect of more accurate pieces on **possable time saving** during assembly.

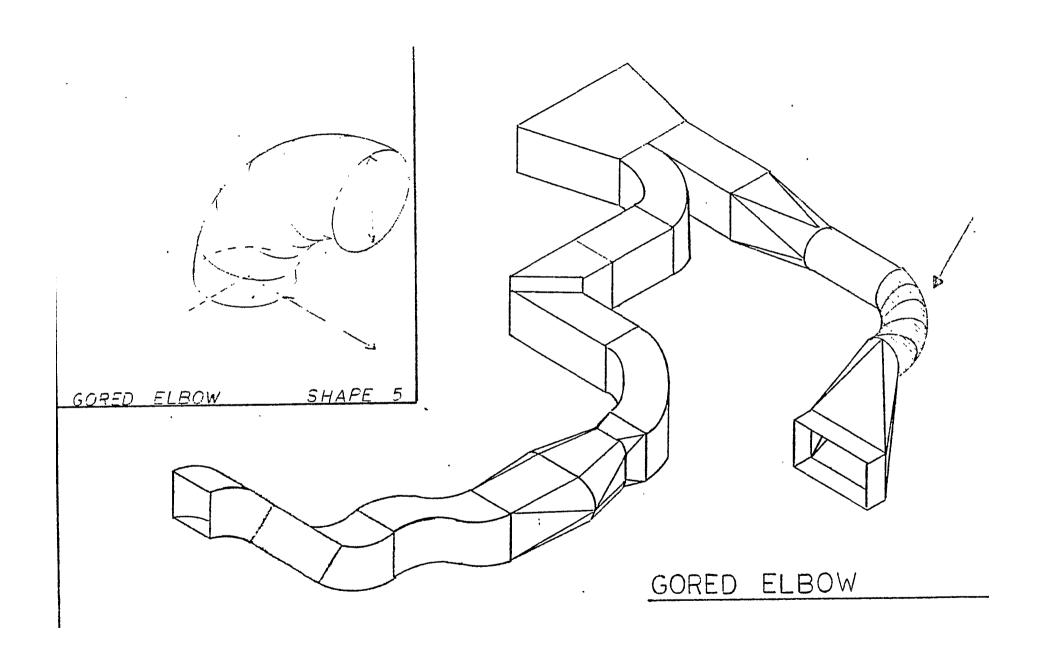
The over all saving for this particular piece repersents between 20 percent.

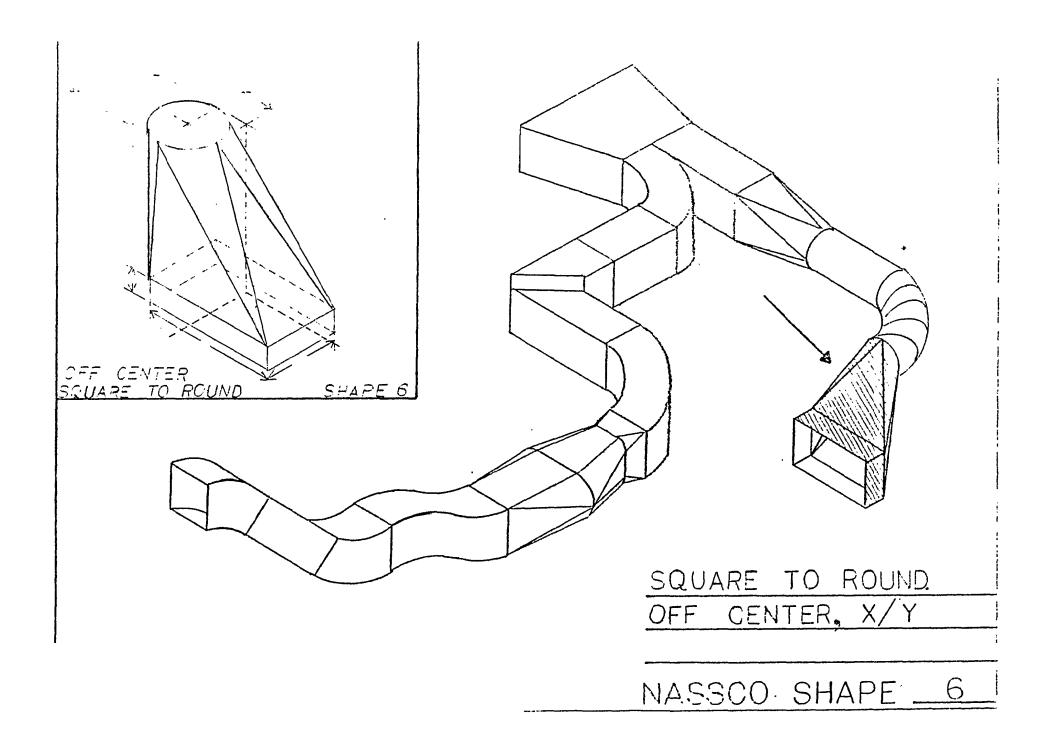


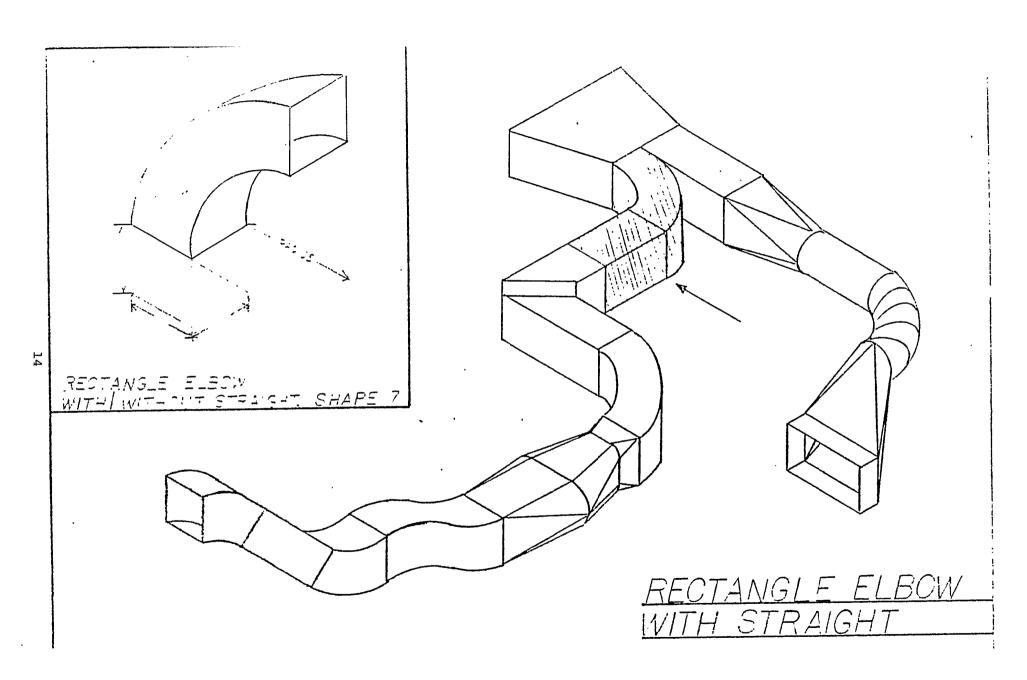
NASSCO SHAPE 3



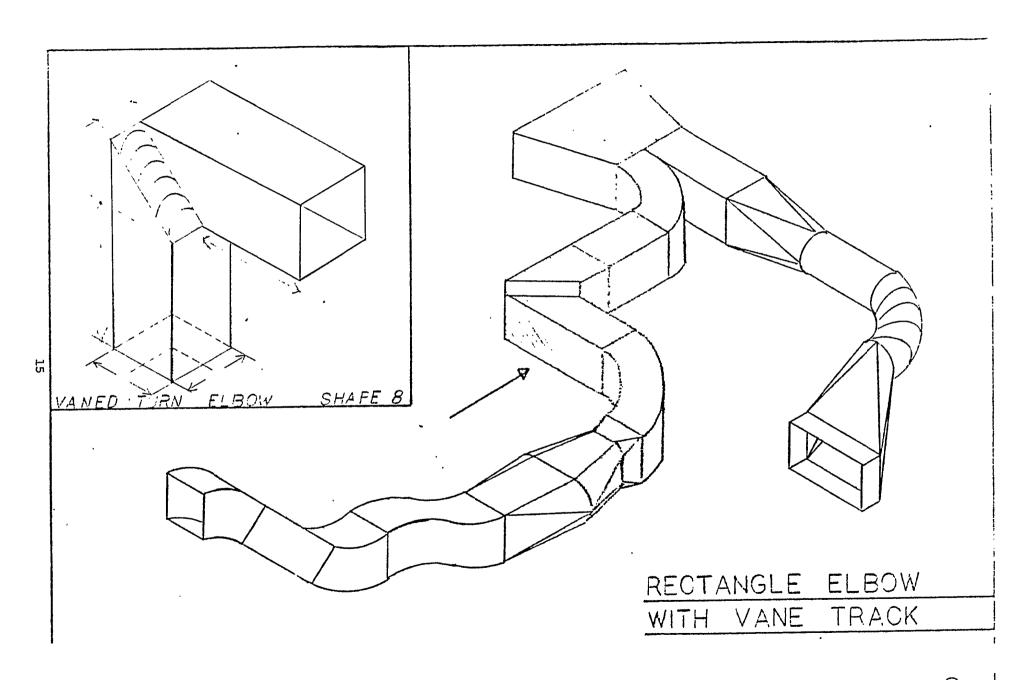
SSCO SHAPE 4



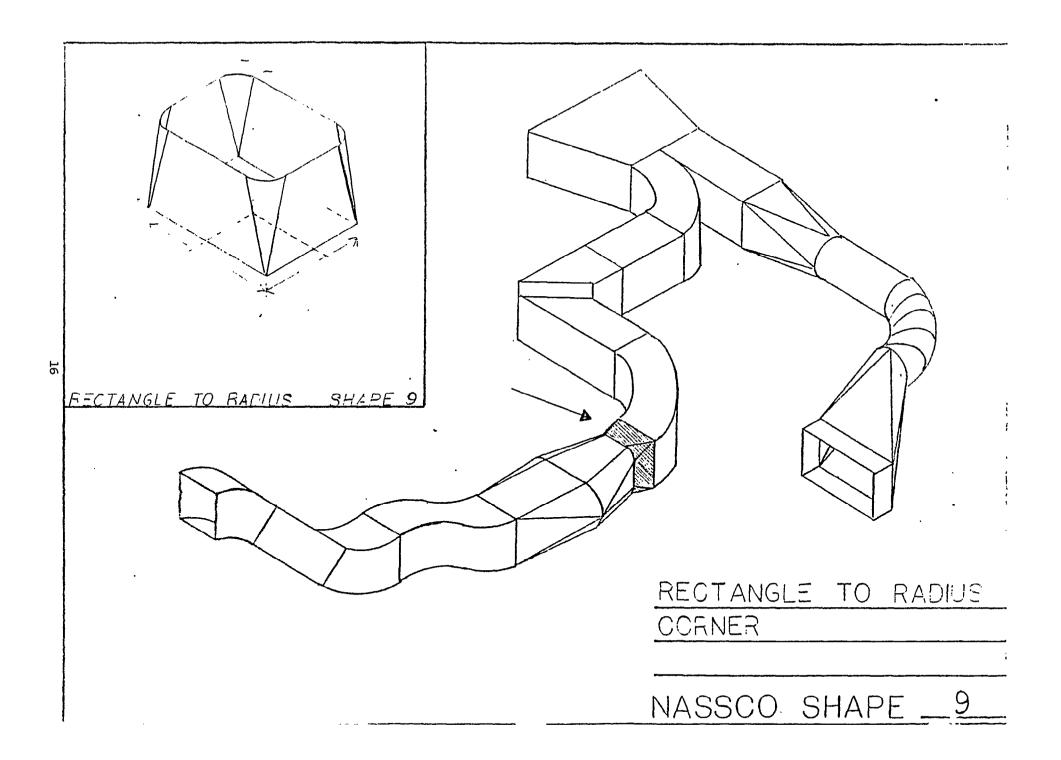


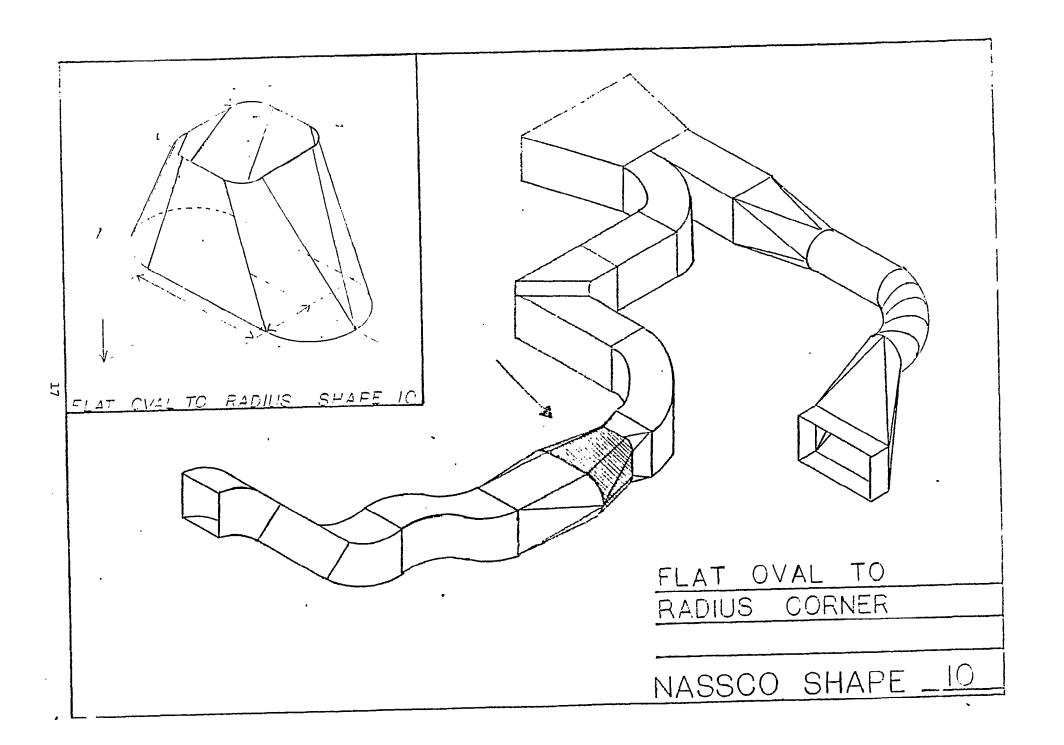


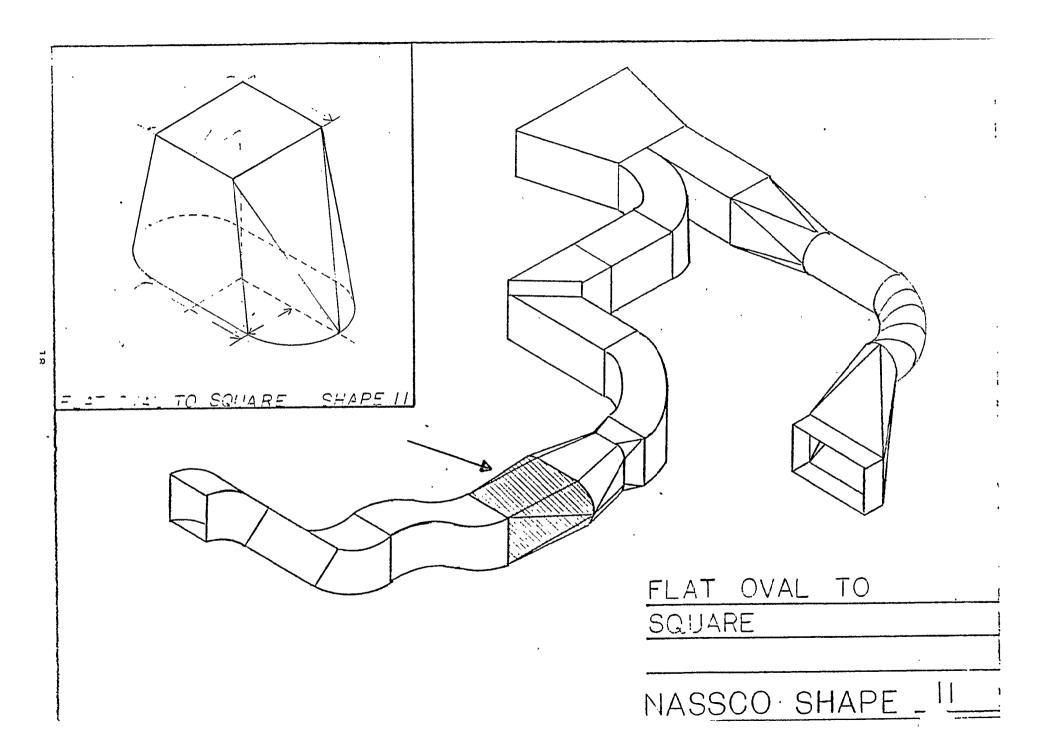
NASSCO SHAPE'. Z\_

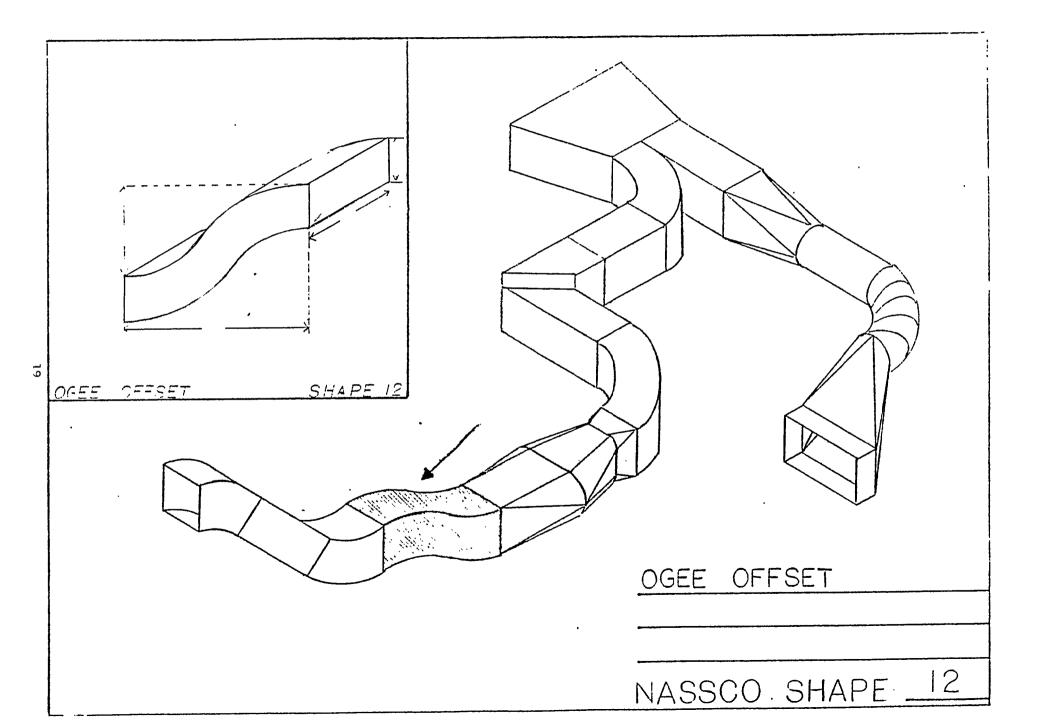


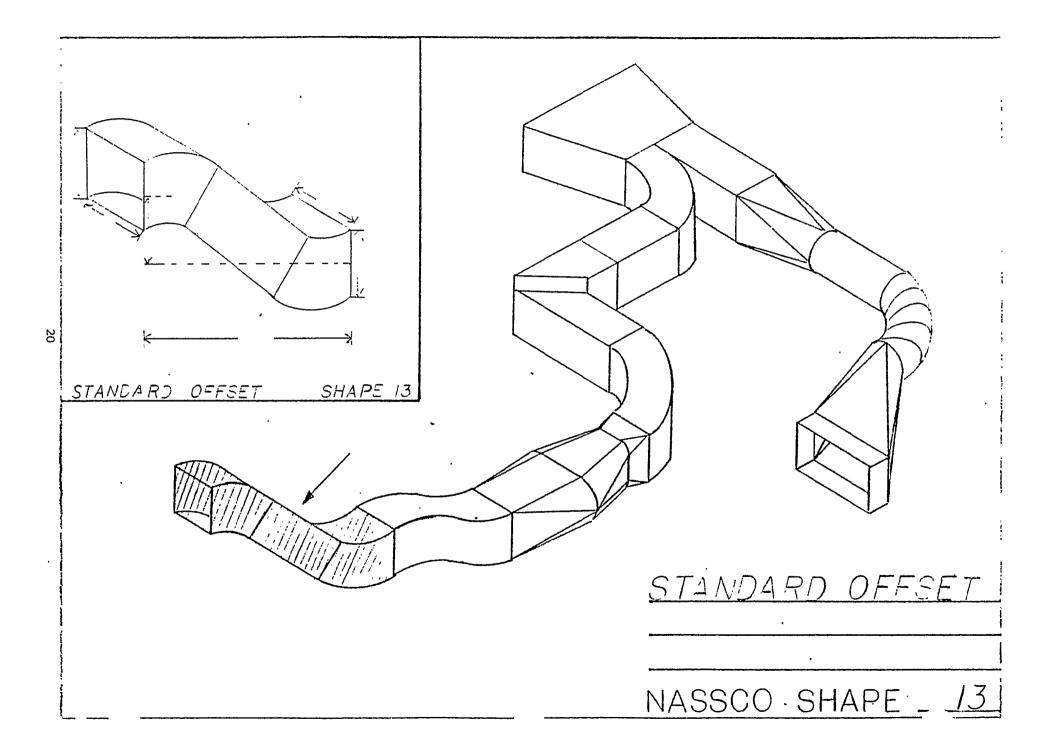
NASSCO SHAPE 8

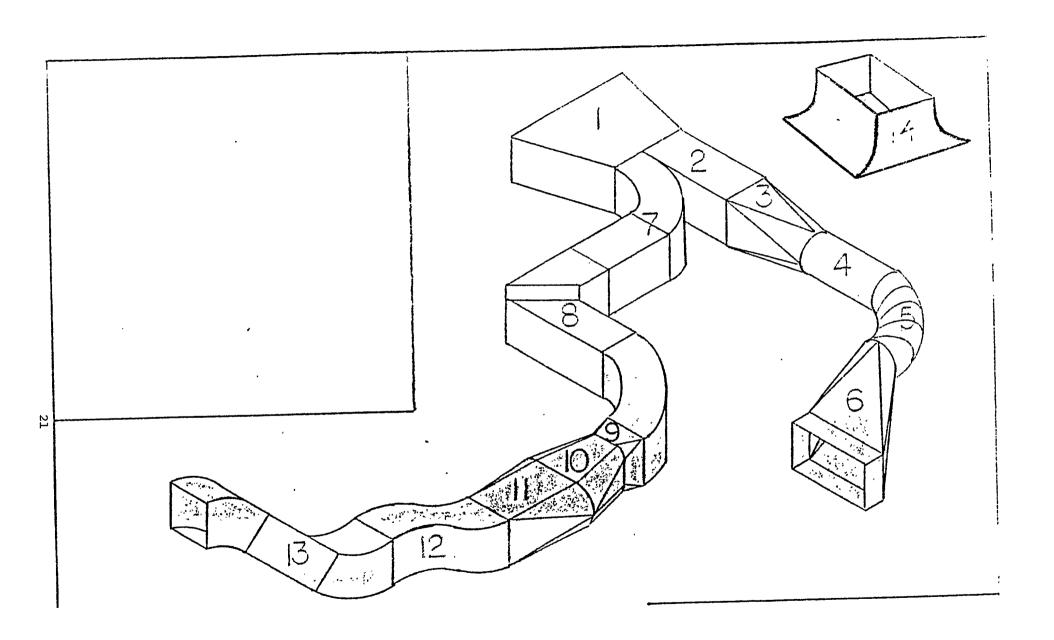












NASSCO SHAPE

### 1.3 Materials

For the purpose of this study the materials involved is standard galvanized sheet steel - FED SPEC QQ-S-775.

USSG	THICKNESS (Inches)	Pounds per Sq. Ft.	Pounds per 4x8 Sheet
		- 46	165
11	.1233	5.16	165
16	.0635	2.66	85
18	.0516	2.16	69
20	.0396	1.66	53
22	.0336	1.41	45

#### NOTES:

- 1. See, also, Sheet 1 of NS-5500 (Page 23).
- 2. The gauge of galvanized sheet is shown on the MOST-analyses sheet in the backup data.

#### 1.4 OPERATIONS

Here is a list of typical operations:

- 1. Sketch. The journeyman, following instructions from the Sheetmetal Planning Group, takes the engineering drawing and prepares a "sketch". This is a 3-D assembly drawing and consist of one or more of the Standard Shapes described in Section 1.2. Sometimes the engineering drawing is merely duplicated on the copying machine (enlarged if necessary). When complete the sketch contains all essential information gauge, dimensions, details, auxillary views, et cetra. Shear size is also marked on this document.
- 2. <u>Layout</u>. If the sketch needs development (as in a square to round) the layout man using dividers, awl, square, steel rule and tin snips lays out the pattern and traces it on heavy layout paper, finally cutting to actual size. An alternate way to layout is to do this work on the computer for the CNC Whitney Panelmaster Punching and Plasma Ave Cutting Machine.
- 3. Markout. Here the various patterns and sketches are marked on the galvanized steel sheet preparetory to cutting to size. Sometime bend lines are marked as well as centerpunch marks. Also construction instructions and part numbers are also placed on the material.
- 4. <u>Material Handling</u>. The usual way to handle the typical 4x8 foot sheets of material is with a 4 wheel cart.

## GENERAL NOTES

### STANDARD RECTANGULAR DUCTING

- 1. Rectangular ducting will be manufactured from galvanized sheet steel of lock forming quality. FED SPEC QQ-S-775. All ductwork will be airtight.
- 2. Ducts exposed to the weather, or where required by Regulatory Bodies for structural fire protection or watertightness, will be 11 USSG (.1196 inch) and of welded construction.

3/16"

- 3. All horizontal ducts in dry cargo holds will be 7.65# plate. All vertical ducts in dry cargo holds will be 10.2# plate.
- 4. All vertical ducts in shops, stores and other locations where subject to damage will be 11 USSG (.1196 inch).
- 5. Ducts manufactured from 11 USSG sheet will be made 1/8 inch undersized to accommodate standard flange sizes.
- 6. Ducts other than those mentioned above will be made with Pittsburgh Comer Lock Seams or Welded. Transverse joints will be overlapped and rivehed on 1-1/2 inch centers or spot welded with the external seams and rivets sealed with an approved fire resistive high velocity duct sealer. The thickness of-material will be determined by the maximum dimension for rectangular ducts as follows:

All vertical exposed 'ducts and horizontal or concealed vertical ducts 24 inches and over

Horizontal or concealed vertical ducts less than 24 inches

JOINT

#20 USSG (.0359 inch).

- 7. All ducts in machinery spaces will be 16 USSG (.0598 inch).
- 8. Circular or flat oval duct sections will be used in lieu of rectangular when passing through beams, girders or other strength members. These penetrations must be approved by the Hull Scientific, who will determine what reinforcement, if any, is required.
- 9. The following standard sizes of square or rectangular ducting will be adhered to where the use of round spiral ducting is impractical. The ratio of width to depth of standard sizes has been limited to 3-1.
- 10. Where it is necessary to design ducting outside the range of standard sizes, any component parts required will be detailed on the system drawing as a nonystandard part.
- 11. Where branch splits are required in rectangular ducts, the two-inch increment sizes will be maintained. The minimum split sizes being two inches.

PPD. BY: Syeus

GENERAL NOTES

STANJMRDRECTANGUIARDUCTING

NS-5500 REV SHTI 0F4 1 '0

- 5. <u>Shear</u>. This operation may be done before or after layout. Here the large 4x8 sheet is cut to the proper size in the powered square shear.
- 6. <u>Nibbler</u>. Irregular or curved pieces are "nibbled" to size with this machine or sometimes by hand with a unishear powered portable hand shear.
- 7. <u>Band Saw.</u> An alternate to nibbling, the bandsaw cuts notches and v-cuts.
- 8. Roll-Bender. Cyllinderical shapes are rolled to size in one of the two powered rolls.
- 9. <u>Duplicator</u>. This machine, hydraulically powered, is a hole puncher. A pattern device that guides a pin into a master pattern can be used to punch a desired hole configuration.
- 10. Drill Press. This typical shop machine drill holes.
- 11. NC Drilling Machine. To achieve a desired hole pattern in a square configuration, angle flanges are drilled on this machine. Usually 7/16 holes for 3/8 bolts.
- 12 <u>Small Press-Brake</u>. For bending 16 gauge and thinner. Pan brakes and leaf brakes are also used for bending.
- 13. <u>Large Press Brake</u>. A 200 ton mechanical press, this machine will bend quite thick metal.
- 14. Lockformer. To produce the form required for Pittsburgh joints there are two basic machines: one to produce the Pittsburgh portion and another to make a flange on the material that will be inserted into the joint. There are also other small, powered, edge forming machines. See page 43.
- 15. Spot Welder. For welding lapped joints.
- 16. <u>Fitting</u>. Essentially a hand process, the various sheet metal formed and flat parts are assembled together to make the complete shape.
- 17. <u>Welding</u>. Besides TIG (tungsten inert gas) and MIG (metal inert gas) hand welding there is also a butt joint automatic seam welder capable of welding an 8 foot long water-tight seam in either TIG (for aluminum or stainless steel) or MIG (for galvanized steel).

#### 2.0 STANDARD PRACTICES AND POLICIES

#### 2.1 Care of Equipment and Work Area

The journeymen take care of their own tools and work area, picking up scrap as they go and cleaning up at the end of every shift. The foremen are responsible for preventive maintenance either doing it themselves or getting Maintenance trades to doing it for them.

### 2.2 Quality Control and Inspection

The inspection is usually performed by the journeyman who does the work, or the foreman. On Navy New Construction (but not conversion or repair work) an inspection step is done by the foreman with a copy sent to Quality Assurance who verify the inspection with spot checking. Essentially this is "in process" inspection as another, final, inspection occurs when the sheetmetal assemblies are installed aboard ship. See Form 800-34 in the "Sample Forms" Section at the end of the manual.

## 2.3 Material Service

The sheetmetal shop has its own fork trucks to move heavy material around.

Outside stock racks contain the various gauges of galvanized sheetmetal and the fitters get their own material, sometimes with help. up to several sheets are transported with 4 wheeled carts. The usual method of transportation is with a 3.5'x5' by 33 inches high cart with two (2) fixed and two (2) swivel wheels. Purchased material - fans, heat exchanges, etc. - is staged in the shop for incorporation into the sheetmetal assembly. Miscellaneous hardware is kept in the stockroom and issued as required.

## 2.4 Supply and Maintenance of Tools

Tools are supplied from two (2) sources: the first is from the journeyman's tool "list" that each employee is obliged to purchase and maintain. Other, more expensive tools are furnished by the sheetmetal shop tool room on a check-out basis. These tools are described on the following pages.

#### TOOL LIST

#### EMPLOYEE NAME

BADGE

### THE FOLLOWING IS A LIST OF HAND TOOLS REQUIRED FOR EACH SHEETMETAL FITTER

THESE TOOLS ARE TO BE KEPT IN GOOD WORKING CONDITION AT ALL TIMES. PERIODICALLY TOOL INSPECTION WILL BE MADE TO INSURE ALL REQUIRED TOOLS ARE KEPT AND MAINTAINED IN GOOD WORKING CONDITION.

```
3/8 Drive Socket Wrench Set, with Ratchet and 12" and 6" Extension
         (with U Joint)
1 ea.
         Open End Wrench Set 3/8" thru 7/8"
         1/2" Drift Pins
2 ea.
         3/8" Drift Pins
2 ea.
1 ea.
         Tap Handle
         Hacksaw Frame
1 ea.
2 ea.
         10" Vise Grips
         Vise Grip "C" Clamps
2 ea.
         8" Adjustable Dividers
1 ea.
1 ea.
         Scratch Awl
         9" Center Punch
1 ea.
         1/2" Cold Chisel
1 ea.
         3/4" Cold Chisel
1 ea.
         8" Crescent Wrench
1 ea.
         Pliers
1 ea.
         16 oz. Ball Peen Hammer
1 ea.
         10 foot Steel Tape Rule (yo-yo type)
1 ea.
         12" Comb. Square w/Square Head
1 ea.
         Left Hand Aviation Snips and Right Hand Aviation Snips
1 ea.
         Pair Leather Gloves
1 ea.
         Stubby Screw Driver (standard bit)
1 ea.
         4 inch Screw Driver (standard bit)
1 ea.
         6 inch Screw Driver (standard bit)
1 ea.
         Stubby Screw Driver (Phillips)
1 ea.
         6 inch Screw Driver (phillips)
1 ea.
         Allen Wrench Set
1 ea.
         Chalk Line (50 foot)
1 ea.
         Flashlight (2 cell)
1 ea.
1 ea. Tool Box with Lock
         Pencil Dividers
```

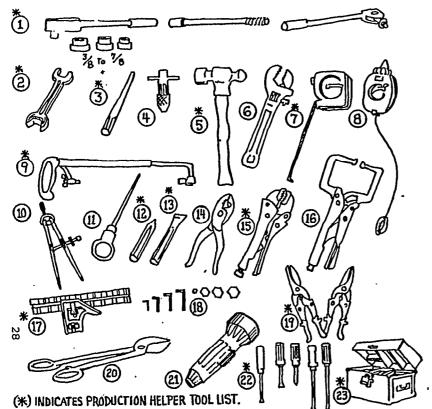
1 pr.

## TOOL CONTROL RECORD

REQUIRED MINIMUM TOOL LIST FOR WELDERS AND PIPE WELDERS

Employee's Name	Badge	C	lassification		0.	zte
Tools	Quan.	Brand Name	Date Registered	Condition Good 🖸	When Registered Fair [] Poor []	Cate Remov
WELDING GLOVES						
WELDING SHIELD WITH FLIP UP WINDOW						
(TO FIT HARD HAT)						
PROTECTIVE CLOTHING (LEATHER WELD-					·	
ING JACKET OR SLEEVES WITH BIB)					•	
SLAG HAMMER						
10" ADJUSTABLE WRENCH						
SIDE CUTTERS						• _
PLIERS		-,				
HIGH TOP LEATHER SHOES WITH HARD	•					
SOLES			•			
		, , , ,	-	`		
•						
•						
					-	
					;	,
					•	
	•				<del></del>	
					<del></del>	
•						
		1				
	· ·			1		
		, , , , , , , , , , , , , , , , , , ,				
				<del>                                     </del>	•	
			1			1
			,	1	*	
		1.	<del>-1::</del>	-		<del></del>

## M. IMUM TOOL LIST



①% DRIVE SOCKET WRENCH SET, WITH RATCHET AND 12" AND 6" EXTENSION.
② OPEN END WRENCH SET 36" THRU 36". ③ DRIFT PING 36" (2 EA.) 36" (2 EA.).
④ TAP HANDLE. ⑤ 16 OZ. BALLPEEN HAMMER. ⑥ 8" CRESCENT WRENCH.
⑦ 10 FT. STEEL TAPE RULE (YO YO) TYPE. ⑧ CHALK LINE (BOFT). ⑦ HACKSAW FRAME.
② 8"ADJUSTABLE DIVIDERS. ① SCRATCH AWL. ② 9"CENTER PUNCH ② COLD CHISEL 36",
AND 34". ④ PLIERS. ② 10"VICE GRIPS (2 EA.). ⑥ VICE GRIP C" CLAMP. (2 EA.).
② 12" COMBINATION SQUARE WITH SQUARE HEAD. ⑩ ALLEN WRENCH SET.
③ LEFT AND RIGHT HAND AVIATION SNIPS. ② 17" HEAVY DUTY BULL DOG SNIPS.
② FLASHLIGHT (2 CELL). ② 4"SCREW DRIVER (STANDARD BIT), STUBBY
SCREW DRIVERS (STANDARD AND PHILLIPS),
③ TOOL BOX (WITH LOCK).

## **GENERAL PRECAUTIONS**

ΔΝΓ

## **REM NDERS**

HELMETS MUST BE WORN OUTSIDE OF SHEET METAL SHOP. EYE PROTECTION MUST BE WORN IN ALL PARTS OF THE YARD. NEVER LOOK DIRECTLY AT AN ARC.

LONG HAIR AND BEARDS MUST BE PROTECTED.

EAR PROTECTION MUST BE WORN AS NEEDED.

DO NOT WEAR LOOSE, OR TORN CLOTHING.

NECKTIES AND DANGLING JEWELRY ARE HAZARDOUS.

BE AWARE OF TRIPPING HAZARDS.

PROTECTIVE SHOES SHOULD BE WORN.

STANDING WATER CAN BE A POTENTIAL ELECTRICAL HAZARD.

MAKE SURE ALL GUARDS ARE IN PLACE BEFORE ATTEMPTING.

TO OPERATE ANY MACHINE.

NEVER ATTEMPT TO BYPASS MACHINE GUARDS.

IN BURNING AND WELDING AREAS CAUTION SHOULD BE TAKEN TO AVOID CONTACT WITH HOT METAL.

Do NOT LEAVE TOOLS AND MATERIAL SCATTERED ABOUT.

BE ALERT FOR LOOSE, BROKEN, OR WORN PARTS.

REPORT ANY DAMAGED EQUIPMENT.

ALL INJURIES MUST BE REPORTED IMMEDIATLY.

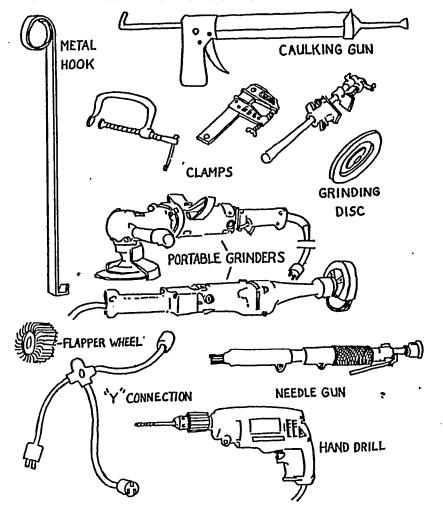
WHEN LIFTING, USE LEGS NOT BACK.

BE AWARE. OF SHARP EDGES WHILE WORKING WITH METAL.

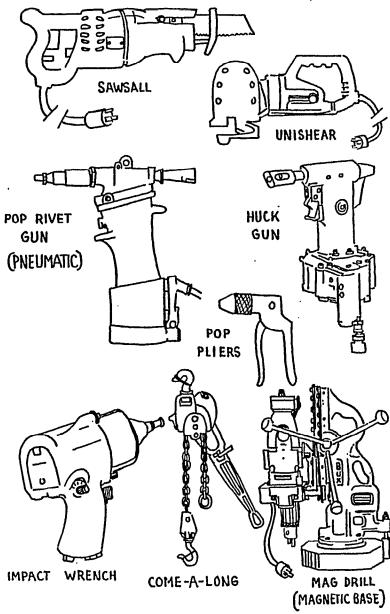
GLOVES ARE NOT RECOMMENDED AND SHOULD NOT BE WORN WHEN USING POWER TOOLS.

TOXIC FUME5 ARE PRODUCED WHEN WELDING GALVANIZED AND PAINTED METALS. INSURE PROPER VENTILATIONS PROVIDED, OR A RESPIRATOR SHALL BE WORN.

THE FOLLOWING ILLUSTRATED TOOLS ARE FOUND IN
THE SHOP, AND ONBOARD SHIP IN THE GANG BOX. DEADMAN
SWITCHES, WHERE EMPLOYED, ARE FOR YOUR PROTECTION
AND MUST NOT BE DEFEATED. IF EQUIPMENT IS IN NEED
OF REPAIR, IT SHOULD BE DONE BY QUALIFIED PERSONNEL.
REPORT ANY DISCREPANCY TO YOUR FOREMAN.



29



## 2.5 Work Assignments

The Sheetmetal Planning Office issues a schedule updated once a week to act as a general guide. All work generally flows through the "machine foreman" who takes the shop instructions in the form of sketches, NC tapes, and patterns and starts the initial process. After flat piece production the work proceeds to other foremen and fitters for final assembly.

Basically the shop foreman assigns all work and keeps the work moving.

### 2.6 Time and Production Reporting

Each fitter and welder has a new time card each day that he hands to the foreman after he clocks in. The foreman fills out the card during each day with the proper charge number(s) and the time in hours and returns it to the operator at the end of each shift. The operator clocks out with the card. The charge number is tracable to the hull number, a code number signifying "ventilation", and the appropriate engineering drawing number.

## 2.7 Set-Up and Tear-Down

The set-up time is part of each work package and no separate time is allowed. Set-up in a shipyard sheetmetal shop may be a major activity as the production "runs" are very low.

### 2.8 Safety Responsibilities

The Company's safety rules are very explicit and the fitter is expected to follow them. Enforcement is in the hands of the foreman and management. Please see the following pages for company and department safety policies and rules.

## 2.9 Supervisory Responsibilities

The foreman has a number of responsibilities including:

- 1. Know and maintain the Company's safety rules and procedures.
- 2. Get the work out on time.
- 3. Make work assignments.
- 4. Maintain quality standards and good workmanship.
- 5. Expedite material, parts, and necessary maintenance.
- 6. Deal with personnel problems.
- 7. Represent NASSCO management to the workers and the community.

#### THE NASSCO SAFETY POLICY

The NASSCO Safety Policy is of utmost importance to every NASSCO employee, regardless of job. This Policy, which represents Management's renewed commitment to a safe working environment requires from all of us our complete cooperation in fulfilling this goal.

NASSCO Management, Which includes all levels of supervision, ranks SAFETY equal in importance with PRODUCTIVITY and PRODUCT QUALITY.

NASSO Management believes that:

All injuries can be prevented. Prevention of all injuries is a realistic goal. A supervisor with responsibility for the well-being of employees cannot be effective without fully accepting this principle.

It is possible to protect against all operating hazards. No matter what the exposure, an effective safeguard can be provided.

NASSCO Management further believes that:

It is the responsibility of Management to provide a safe work environment in which the enployees can perform their job assignments. All supervisors must be aware of safety requirements and must assure that no employee is given a job assignment without first determining that the employee can perform his or her duty under safe conditions.

It is the responsibility of Mangement to look for better and safer ways to perform a job.

It is the responsibility of Management to provide ongoing education and training for all employees so they can learn safe working habits.

It is the responsibility of Employees once they are adequately trained and instructed, to work safely and to lookout for themselves and their fellow workers.

It is the responsibility of Employees to comply with safety standards, rules and regulations.

It is the responsibility of Employees to call supervisors' attention to any unsafe condition or act.

It is the responsibility of Employees to refrain from tampering with or abusing of safety devices.

Accidents are costly not only in terms of human pain and suffering, but also in terms of productivity and efficiency in NASSCO'S operations. These have a direct impact on NASSCO's competitive posture within the shipbuilding and repair industry. Only if Manager and Employees together give safety the attention it must get to avoid. injuries, the future well-being of NASSCO and its employees be assured.

12
V.
Ŋ

name				BADGE			
ADDRESS_			CITY				
ZIP		PHONE					
	TODAYS DATE			DATE	HIRED	(ANNIV.	DATE)

## SAFETY MEMO FOR SHEETMETAL WORKERS

BELOW IS A LIST OF ITEMS WE WOULD LIKE FOR YOU TO READ. AS YOU READ THEM, FEEL FREE TO ASK ANY QUESTIONS YOU MIGHT HAVE. IF WE CAN'T ANSWER THEM, WE WILL DO OUR BEST TO GET AN AN ANSWER FOR YOU.

- 1. 1. THE NUMBER ONE ITEM IN THIS SHIPYARD IS SAFETY. THE REASONS ARE:
  - A. SUPERVISORS IN TEE SHEETMETAL DEPARTMENT ARE ALWAYS CONCERNED FOR YOUR SAFETY. IF YOU ARE INJURED AND OFF WORE YOU SUFFER PAIN, YOUR FAMILY IS DEPRIVED BECAUSE OF LOST PAY AND IT IS DIFFICULT FOR THE DEPARTMENT TO MAINTAIN ITS PRODUCTION SCHEDULE WREN YOU ARE INJURED.
  - B. NASSCO HAS SAFETY RULES "SAFETY FIRST-LAST-ALWAYS", WHICH WE MUST ABIDE BY.
  - C. OSHA (CAL & FED) ALSO HAVE RESTRICTIONS WE MUST ADHERE TO.
  - D. MANY ACCIDENTS ARE CAUSED BECAUSE OF THE WORK HABITS OF THE EMPLOYEE.

    WE AT NASSCO HOPE THAT YOU COME TO WORE EACH DAY WITH A POSITIVE ATTITUDE.

    WE HAVE ATTACHED A SHEET ON ATTITUDES AND WE ASK THAT YOU READ IT AND LOOK

    AT THE NEGATIVE AND POSITIVE ATTITUDE WHILE YOU ARE READING.

#### 2. SAFETY REQUIREMENTS

- A. ALL WORE MUST BE DONE IN A SAFE WAY. EVERY PRECAUTION MUST BE TAKEN TO ACCOMPLISH EVERY JOB SAFELY.
- B. COMPANY SAFETY RULES REQUIRE APPROVED SAFETY GLASSES BE WORN AT ALL TIMES 'IN THE YARD. CHECK WITH YOUR SUPERVISOR TO SEE IF YOUR PRESCRIPTION GLASSES ARE APPROVED INDUSTRIAL SAFETY GLASSES. NON-PRESCRIPTION GLASSES ARE AVAILABLE AT TEE CENTRAL TOOL ROOM. PRESCRIPTION GLASSES MAY BE OBTAINED THROUGH THE COMPANY. HOWEVER, ATLEAST PART OF THE EXPENSE WILL BE THE EMPLOYEES RESPONSIBILITY. IF YOU ARE A WELDER YOUR SAFETY GLASSES MUST BE WORN UNDER YOUR HOOD. THE GLASSES IN YOUR HOOD ARE NOT CONSIDERED ENOUGH EYE PROTECTION SO YOU MUST WEAR YOUR SAFETY GLASSES UNDER YOUR WELDING HOOD.
- C. COMPANY SAFETY RULES REQUIRE THAT HARD HAT BE WORN AT ALL TIMES EXCEPT IN THE SHEETMETAL SHOP.
  - IF YOU ARE A WELDER, YOU MUST WEAR YOUR BARD HAT WITH YOUR WELDING HOOD ATTACHED TO THE HARD BAT. OTHER TYPES OF WELD HOODS ARE NOT LEGAL EXCEPT WHEN APPROVED BY YOUR DEPARTMENT READ OR A SAFETY SPECIALIST.
- D. YOU MAY BE REQUIRED TO WORE IN CLOSE PLACES. IF YOU DO AND YOU ARE WELDING, BURNING OR WORKING WITH OR CLOSE TO ANYONE WHO IS WELDING OR BURNING ON GALVANIZE MATERIAL, ON A PAINTED SURFACE OR A SURFACE COATED WITH A PRESERVATIVE, YOU MUST HAVE AN EXHAUST VENTILATION TUBE WITHIN SIX (6") INCHES OF THE WORK.

YOU SHOULD ALSO WEAR A RESPIRATOR. RESPIRATORS CAN BE OBTAINED FROM THE TOOL ROOM THROUGH YOUR SUPERVISOR. VENTILATION CAN BE OBTAINED FROM THE TEMPORARY SERVICES DEPARTMENT THROUGH YOUR SUPERVISOR. SUPERVISORS MUST ENFORCE THE REQUIREMENT FOR PROPER VENTILATION AND WEARING RESPIRATORS.

THE TEMPORARY SERVICES DEPARTMENT HAS THE RESPONSIBILITY OF STARTING AND TURNING OFF CERTAIN TYPE OF BLOWERS THROUGHOUT THE YARD. IT IS VERY IMPORTANT THAT THESE BLOWERS BE LEFT OPERATING ONCE THEY HAVE BEEN TURNED ON IN ORDER TO AVOID THE POSSIBILITY OF A BUILD-UP OF HAZARDOUS FUMES. WE HAVE RECEIVED REPORTS OF SOME EMPLOYEES TURNING OFF THESE LARGE BLOWERS DURING LUNCH BREAK. THIS IS A SERIOUS PROBLEM THAT CANNOT BE IGNORED.

NO ONE OTHER THAN AUTHORIZED EMPLOYEES IS TO TURN OFF THESE BLOWERS ONCE THEY HAVE BEEN TURNED ON BY TEMPORARY SERVICES. IN THE EVENT THESE BLOWERS NEED TO BE TURNED OFF, EMERGENCY OR OTHERWISE, CALL TEMPORARY SERVICES AT EXTENSION 2-258.

BEGINNING 05/07/79, VIOLATIONS OF THIS PROCEDURE WILL BE CONSIDERED A TERMINATION OFFENSE UNDER GENERAL RULE A OF THE COMPANY'S ESTABLISHED WORK RULES. THIS PROCEDURE WILL NOT APPLY TO STARTING AND TURNING OFF THE SMALL LOCAL EXHAUST BLOWERS USED BY WELDERS.

- E. IT IS PRESENTLY MANDATORY THAT YOU WEAR HEARING PROTECTION IN THE SHEETMETAL SHOP. IN OTHER AREAS IT IS RECOMMENDED THAT YOU WEAR HEARING PROTECTION WHEN WORKING WHERE THERE IS LOUD NOISES. HOWEVER, IF YOUR SUPERVISOR DETERMINES THAT THE NOISE LEVEL IS SUCH THAT DAMAGE TO YOUR HEARING IS POSSIBLE HE/SHE CAN MAKE IT MANDATORY FOR YOU TO WEAR HEARING PROTECTION.
- F. YOU WILL HAVE OCCASIONS TO WORK ON SCAFFOLDING OR STAGING. SEVERAL THINGS TO KEEP IN MIND ARE:
  - 1. NEVER HAVE LESS THAN TWO (2) 12" PLANKS TO WALE ON.
  - 2. IF YOU ARE WORKING OVER 5' HIGH, YOU MUST HAVE GUARD RAILS TO KEEP FROM FALLING. THIS REQUIRES ATOP RAIL AND A MID RAIL. IF RAILING ARE NOT UP, YOU MUST WEAR A SAFETY BELT TIED OFF TO A SOLID STRUCTURE OTHER THAN THE SCAFFOLD. IF FOR SOME REASON YOU MUST MOVE GUARDRAILS OR PLANKS, BE SURE TO TELL YOUR SUPERVISOR SO THAT THEY CAN BE REPLACED SO THAT THE NEXT MAN UP THERE HAS PROPER PROTECTION.
  - BEFORE CONSTRUCTING STAGING, CHECK PLANKS AND HORSES. NEVER USE FAULTY
    PLANKS, PLYWOOD OR HORSES. <u>FOR MORE DETAIL ON STAGING SEE ATTACHED SHEET</u>.
  - 4. NEVER MARE CHANGES TO EXISTING SCAFFOLDING OTHER THAN HORSES AND PLANKS. IF CHANGES ARE TO BE MADE, CONTACT YOUR IMMEDIATE SUPERVISOR AND HE WILL GET SOMEONE TO MARE THE NECESSARY CHANGES FOR YOU.
- G. YOU WILL HAVE MANY OCCASSIONS TO WORK ON PORTABLE LADDERS. THEY ARE ONLY AS SAFE AS YOU MARE THEM, WHEN A LADDER IS DAMAGED IN ANYWAY TARE IT TO YOUR SUPERVISOR SO HE/SHE CAN EITHER HAVE IT FIXED OR DESTROYED. MARE SURE THE LADDER IS OPENED UP PROPERLY AND IS SETTING ON A FLAT SURFACE BEFORE USING. IF LADDER IS LEANED AGAINST ANOTHER SURFACE MAKE SURE IT IS PROPERLY SECURED AT TOP AND BOTTOM BEFORE USING. NEVER WORK FROM THE TOP TWO RUNGS OF ANY LADDER. YOU SHOULD NEVER TRY TO REACH OUT BEYOND THE LADDER SO THAT YOUR BODY IS IN AN UNBALANCED POSITION.

- H. ALWAYS KEEP YOUR WORK AREA CLEAN. HANG ALL HOSES, LINES, LEADS AND ELECTRICAL CORDS UP OFF AND OUT OF THE WALKWAYS. NEVER WORK IN AN AREA WHERE YOU MUST CLIMB OVER SCRAP AND TRASH.
- I. IT IS RECOMMENDED THAT YOU WEAR SAFETY SHOES OR OTHER FOOT PROTECTION. A SHOE MOBILE COMES INTO NASSCO PERIODICALLY. YOU WILL BE NOTIFIED THROUGH THE BULLETIN BOARD AND YOUR SUPERVISOR THE NEXT TIME THE SHOEMOBILE WILL BE HERE. YOUR SUPERVISOR CAN PROVIDE YOU WITH THE FORMS NECESSARY FOR YOU TO MAKE A VISIT TO THE SHOE MOBILE. FILL OUT THE FORM AND GIVE IT TO YOUR SUPERVISOR AND HE WILL RETURN IT TO YOU SHOWING THE TIME AND DATE YOU MAY VISIT THE SHOE MOBILE. THERE ARE OTHER TYPES OF FOOT PROTECTION AVAILABLE IN THE CENTRAL TOOL ROOM. CHECK WITH YOUR SUPERVISOR AND HE/SHE WILL MAKE ARRANGEMENTS FOR YOU TO CHECK THEM OUT. TENNIS SHOES, SHOES WITH NO HEELS AND ALL CLOTH SHOES ARE PROHIBITED TO WEAR DURING WORK
- J. NEVER WEAR RAGGED OR TORN CLOTHING.
- K. K. BEFORE CLIMBING THE VERTICAL LADDERS ABOARD SHIP MAKE SURE THEY ARE SECURED SO IT WON'T SLIP WHILE YOU ARE CLIMBING.
- L. NEVER WALK UNDER A LOAD SUSPENDED BY A CRANE OR FORK LIFT.
- M. WHEN WORKING AROUND MACHINERY MAKE SURE THAT ALL GUARDS ARE IN PLACE AND KEEP YOUR MIND ON THE JOB ATHAND TO PREVENT SERIOUS INJURIES. NEVER REMOVE GUARDS FROM MACHINERY UNLESS AUTHORIZED BY YOUR SUPERVISOR. IF YOU SEE A GUARD THAT HAS BEEN REMOVED FROM THE MACHINERY, CONTACT YOUR SUPERVISOR.
- N. YOU SHOULD NEVER USE ANY MACHINERY BEYOND IT CAPACITY. THIS CAN CAUSE DAMAGE TO YOURSELF, YOUR FELLOW WORKER AND THE MACHINERY. ALMOST ALL OF THE MACHINES ARE MARKED AS TO IT'S CAPACITY. THERE ARE CERTAIN MACHINES IN THE SHEETMETAL SHOP THAT REQUIRE MACHINE OPERATORS ONLY AND YOUR SUPERVISOR WILL POINT THESE MACHINES OUT TO YOU.
- P. WHEN USING A COME-A-LONG YOU SHOULD FOLLOW THE FOLLOWING:
  - 1. ALWAYS KNOW CAPACITY AND CAPABILITY OF A COME-A-LONG. NEVER USE THE TOOL BEYOND ITS CAPACITY AND/OR CAPABILITY.
  - 2. ALWAYS MAKE A VISUAL INSPECTION OF ALL COME-A-LONGS BEFORE USING:
    - A. CHECK CHAIN FOR BAD LINKS AND END STOP.
    - B. CHECK HOUSING FOR CRACKS.
    - C. CHECK FORWARD AND REVERSE TRIGGER TO SEE THAT IT WORKS PROPERLY.
    - D. CHECK CHAIN RELEASE TO SEE THAT IT WORKS PROPERLY.
    - E. CHECK HOOKS FOR SAFETY DEVICE (MOUSE) AND MAKE SURE HOOKS ARE NOT SPREAD TOO FAR APART.
  - 3. IF COME-A-LONG DOES NOT OPERATE PROPERLY; TURN TN FOR REPAIR. DO NOT USE.
  - 4. NEVER USE CHEATERS (PIPE SLIPPED ON HANDLE) ON COME-A-LONG.
  - 5. NEVER USE UNAUTHORIZED BEAM CLAMPS OR PAD EYES, CLAMPS SHOULD BE STAMPED FOR WEIGHT CAPACITY.

- COME-A-LONG HOOKS MUST ALWAYS BE MOUSED WHEN IN USE.
- 7. COME-A-LONG MUST BE HOOKED IN PAD EYE OR BEAM CLAMP SO THAT WEIGHT IS IN THROAT OF HOOK. NEVER USE POINT OR EDGE OF HOOK TO LIFT OR MOVE OBJECT.
- 8. ALWAYS USE BEAM CLAMPS OR PAD EYES WITH COME-A LONG. NEVER USE EDGE OF BEAMS. THIS CAUSES HOOK TO SPREAD, THEREFORE, WEAKENING HOOK.
- 9. PAD EYES SHOULD ALWAYS BE WELDED SOLID ON THE OUTSIDE AND TACK WELDED ON INSIDE.
- 10. BEAM CLAMPS SHOULD ALWAYS BE SECURED SO THEY WILL NOT SLIDE ON BEAM WHILE COME-A-LONG IS IN USE.
- 11. IF A BEAM CLAMP OR PAD EYE BECOMES UNSAFE TO USE RETURN TO SUPERVISOR FOR REPLACEMENT.
- 12. AN EVALUATION OF THE OBJECT BEING LIFTED TO DETERMINE WHETHER ONE OR TWO COME-A-LONGS SHOULD BE USED, MUST BE DONE BEFORE OPERATING COME-A-LONGS.
- 13. ALWAYS BALANCE LOAD ON COME-A-LONG. COME-A-LONGS SHOULD ALWAYS BE HOOKED SO THAT LOAD WILL NOT SHIFT.
- 14. NEVER ALLOW EXCESSIVE SLACK IN CHAIN. OBJECT COULD SLIP AND FALL.
- 15. NEVER STAND, WALK OR WORK UNDER A LOAD WHILE BEING HELD BY A COME-A-LONG.
- 16. NEVER LEAVE A COME-A-LONG IN OPERATION OVER NIGHT UNLESS AUTHORIZED BY SUPERVISOR.
- 17. IF THE LOAD BEING HANDLED IS SUCH THAT IT WOULD BE UNSAFE TO USE SHEETMETAL DEPARTMENT COME-A-LONGS (3/4 TON), CONTACT YOUR SUPERVISOR FOR ASSISTANCE IN HOW TO HANDLE LOAD OR SEEK HELP FROM RIGGING DEPARTMENT.
- 18. COME-A-LONGS SHOULD NEVER BE LEFT LAYING AROUND. WHEN NOT IN USE, RETURN TO GANG BOX.
- 19.. NEVER LOAN COME-A-LONGS TO ANOTHER DEPARTMENT UNLESS APPROVED BY SUPERVISOR.
- Q. ANY TIME YOU ARE REQUIRED TO ENTER A TANK, YOU SHOULD ALWAYS CHECK WITH YOUR SUPERVISOR TO MAKE SURF, THE TANK IS GAS FREE AND YOU SHOULD ALWAYS HAVE PROPER VENTILATION BEFORE ENTERING THE TANK. MOST GASES ARE HEAVIER THAN AIR AND WILL THEREFORE SETTLE IN THE BOTTOM OF TANKS. SO REMEMBER TO ALWAYS CHECK TO SEE THAT TANKS ARE GAS FREE BEFORE ENTERING.
- 3. **NEW EMPLOYEES**, **ASSIGNED** TO THE SHEETMETAL SHOP WILL BE CONDUCTED ON A TOUR OF THE SHOP WITH A SUPERVISOR TO EXPLAIN THE MACHINES, THEIR CAPABILITIES, AND THEIR USES. DO NOT USE THESE MACHINES UNTIL YOU HAVE BEEN INSTRUCTED IN THEIR SAFE OPERATING PROCEDURES.
- 4. IF YOU ARE INJURED ON THE JOB, YOU SHOULD NOTIFY YOUR FOREMAN IMMEDIATELY AND THEN HE WILL RELEASE YOU TO CO TO MEDICAL,

- 5. WE REQUEST THAT YOU DO NOT TAKE FOOD, NEWSPAPERS AND MAGAZINES ABOARD THE SHIPS. THESE ITEMS CREATE HOUSEKEEPING PROBLEMS AND FIRE HAZARDS.. HOWEVER, IF YOU DO TAKE FOOD ABOARD, THERE IS DESIGNATED EATING AREAS. ONLY IN THOSE AREAS ARE YOU ALLOWED TO EAT FOOD. PLEASE THROW ALL TRASH IN THE TRASH CAN.
- 6 .WHEN YOU ENTER AN AREA TO WORK, CHECK FOR THE FOLLOWING:
  - 1. EXITS BE SURE YOU KNOW THE DIRECTION YOU MUST GO TO EXIT. IF MORE THAN ONE, KNOW EACH ONE.
  - 2. FIRE EXTINGUISHER: FIND CLOSEST EXTINGUISHERS FOR EACH TYPE OF FIRE.

    NEVER USE WATER ON ELECTRIC FIRE.
- 7. THE COMPANY HAS INSTALLED AN ALARM SYSTEM ABOARD SHIP UNDER CONSTRUCTION. EACH ALARM GIVEN REPRESENTS CERTAIN THINGS. EACH EMPLOYEE SHOULD MAKE THEMSELVES FAMILIAR WITH EACH SIGNAL SO THAT IF HE/SHE HEARS THAT ALARM THEY WILL KNOW WHAT TO DO.

FOLLOWING IS A LIST OF SIGNALS GIVEN WHEN NECESSARY:

- 1. <u>FLOODING</u> HIGH-LOW STEADY TONE FOR TEN (10) SECONDS, TO BE REPEATED AS NECESSARY.
- 2. FIRE THREE TEN-SECOND BLASTS WITH A PAUSE BETWEEN EACH BLAST, TO BE REPEATED AS NEEDED, AUGMENTED BY ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM.
- 3. <u>STOP HOT WOR</u>K PULSING TONE FOR TEN-SECONDS TO BE REPEATED AS NEEDED, AUGMENTED BY ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM.
- 4. EVACUATION STEADY TONE FOR TEN-SECONDS TO BE REPEATED AS NEEDED, AND ANNOUNCEMENT OVER THE LOUDSPEAKER SYSTEM. WHEN THE EVACUATION SIGNAL IS GIVEN, ALL PERSONNEL NOT ENGAGED IN THE FIRE FIGHTING ACTIVITIES WILL IMMEDIATELY BUT IN AN ORDERLY MANNER, EVACUATE THE SHIP AND MEET WITH THEIR SUPERVISOR IN THE VICINITY OF THE LOWER END OF THE BROW OR GANGWAY. WHEN DESCENDING FROM RAMPS, GANGWAYS, AND/OR STAIRS, PLEASE USE THE RIGHT HAND SIDE SO THAT OUR FIRE FIGHTERS CAN GAIN ACCESS TO THE FIRE.

OCCASSIONALLY FIRE DRILLS MAY BE CONDUCTED. THE PURPOSE OF FIRE DRILLS ARE BASICALLY TO KEEP YOU INFORMED AS TO THE PROPER MEANS OF ESCAPE. ESCAPE ROUTES ARE POSTED ON THE SHIPS BULKHEADS, ADHERE TO THEM AND KNOW THEM. THE LIFE YOU SAVE MAY BE YOUR OWN. WE CAN TRAIN YOU AND TEACH YOU THE PROPER MEANS OF EGRESS BUT THE WHOLE KEY IS - DO YOU WANT TO LEARN AND DO YOU CARE?

NOTE: THE ABOVE SAFETY SUGGESTIONS ARE ONLY A FEW OF THE MANY THAT COULD BE MENTIONED. MOST OF THE SAFETY HAZARDS ARE CAUSED BY INDIVIDUALS AS THEY WORK. WE ASK THAT ALL OF YOU MAKE SAFETY YOUR JOB. IF YOU SEE SOMETHING THAT IS OR LOOKS UNSAFE. PLEASE NOTIFY YOUR SUPERVISOR IMMEDIATELY SO THAT CORRECTIVE ACTION CAN BE TAKEN. SAFETY IS A TEAM EFFORT SO LETS BE A GOOD TEAM.

"NEVER TAKE THAT CHANCE: IT'S TOO COSTLY"

#### SAFETY ATTITUDE

Following are some thoughts on the subject of Sefety Attitude. These comments are basic and fundamental. Almost anyone commenting on these basic attitude principles would say, "well, any fool knows that." Herein lies the Problem. Just knowing is not enough; however, knowing and then acting upon that knowledge with a positive "Can do" attitude is what marks a winner. For example, look at NASSCO's Can Do attitude towards quality and production. Safety attitude forms what could be called the backbone Of any safety program, new or old. In comparing a negative attitude in a safety program to the building of a ship, it would be like not including a rudder prior to delivery If these basic points are not driven home and adhered to, the safety program just-sort of drifts around off course. Addressed to all supervisors, these-basic points are as follows

#### 1. The negative attritude.

The negative or wrong attitude is one that conveys the message:- "This safety-business is not my idea but something that the company, my boss, or the Safety Department dreamed up; you know that I don't agree with it, after all, I am on your side. It is mostly just a waste of time, but because I have to go through the motions, here it is."

There are probably a hundred ways that the above negative message can be conveyed; following are a few:

- a) Expressed outright
- b) .Implieu.l. a verbal message\_(scmetimes\_very\_subtle) :
- c) By actions, and they do indeed speak louder than words...

No matter how the negative attitude described above is conveyed, it is 100% guaranteed to produce zero benefits for

- a) The employee-
- b) Yourself
- c) Your boss
- d) Your Company.

2. The positive attitude.

The positive attitude is a sincere personal and consistent commiment to prevent or lost time injuries. The Company you work for has every right, and does expect you to convey the above positive approach to Safety.

To convey the sincere, positive message described above does **not require** a college degree in psychology of human behavior. It seems that there is hardly anything that people pick up, faster from other people can insincerity. So the answer to how to convey the positive message is very simple. It just takes an honest, sincere-effort on your part.

Are there any-benefits to be derived from honest, sincere, positive approach? You bet there are:

- a) The employees . They can avoid suffering and injury. They do not lose time. Helping them to avoid crippling-injury is also helping their families. There are many more benefits for the employees who avoid injury.
- b) Yourself Satisfaction in properly performing your job and helping to prevent injury to the employees you supervise. You become a more valuable asset to your boss and your Company.
- c) Your <u>boss</u> You are telling your boss that you are supervising your employees in the performance-of their work in a safe manner, and that he does-not have to worry about your holding up your end.
- d) Your <u>Company</u>. You are performing your in the manner expected. of you. You are helping your Company avoid liability for injuries. You are helping to keep good, experienced People on their jobs and prevent expensive retiring and training. All in all, you are helping your Company to stay more competitive in obtaining new business and therefore maintaining the present workforce, or perhaps increasing employment.

#### Housekeeping Attitude

Look around your area and take a common-sense approach to housekeeping. Are you asking your people, on a daily basis, to continually walk over unnecessary tripping hazards? If so, clean themn up. Don't let accmulations of scrap and debris pile up. Order scrap boxes and clean out accumulations. Poor housekeeping not only looks bad, it has a tendency to breed other types of sloppy-work practices. Walkways throughout the yard should be kept clear of protruding material and debris, and should be clearly marked off.

#### Caution

There is a caution that everyone should be applying when carrying out a good, aggressive safety program: Avoid any possibility of being accused that safety is used as a club or a way to get at someone, or to harass someone. Again it is a very Simple matter to avoid this by just adhering to an honest; sincere, positive approach.

#### Accountability

It-is-your-personal attitude towards safety, your personal-commitment to the Company safety policy that you will be held accountable for, not-necessarily the statistics or numbers. In other words, it is your sincere; positive effort that is expected and required.

#### SECTION 3

#### 3.0 FACILITIES AND EQUIPMENT

#### 3.1 Shop Layout and Production Equipment

The next enclosed page shows a pictograph of the shop and a list of the major equipments.

#### 3.2 Material Handling Equipment

A dedicated fork lift truck using pallets is the common way to handle the completed ventilation components. The components go first to painting which is an outside area downwind from the shop and then to a staging area.

FACILITIE N

26 CUT.OFF SAW 27 MID WELDERS

28 IRON WORKER 29 SANDBLAST CABINET

30 1 TON JIB CRANE

31 GRINDER

32 NUMERIDEX LC.6000

2 TERMINALS AND PLOTTER



EXHIBIT 1-61

LIST OF EQUIPMENT

1 WHITNEY 6470 PANELMASTER

2 WHITNEY 636A DUPLICATOR 3 12 FT. HYDRAULIC PRESS BRAKE 4 12 FT. MECHANICAL PRESS BRAKE

5 N/C DRILLMASTER 6 RADIAL DRILL

13 1/16" X 8' SHEAR 13 EDDER

16 PITT SOURGH FORMER 17 NIBBLER

7 BANDSAW 8 PRESS BRAKE

9 GRINDER 10 1/4" X 14' SHEAR 11 SPOT WELDER

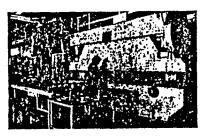
14 FLANGER 15 FORMER

18 LOCKFORMER 19 CORNICE BRAKE

20 PAN BRAKE

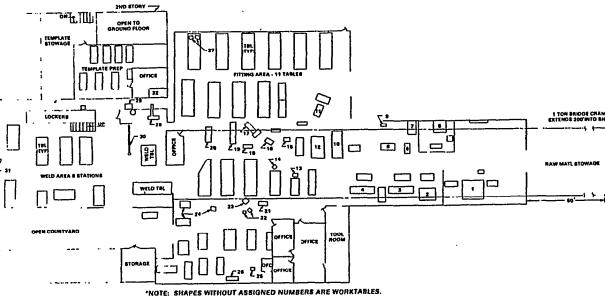
21 4 FT. LEAF BRAKE 22 DRILL PRESS 23 NOTCH PUNCH 24 BANDSAW 25 ROD BENDER

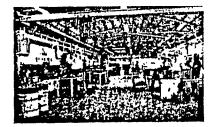












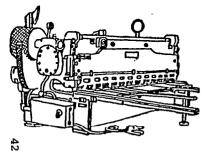




### **SHOP** MACHINES

ALL MACHINES PERFORM SETTER AND SAFER WHEN OPERATED PROPERLY. IF YOU DON'T KNOW HOW - SEE YOUR FOREMAN FOR INSTRUCTIONS BEFORE STARTING.

#### **SHEARS**



STOP START OFF REV FOR SET.

O O START OFF REV FOR SET.

HAIN DRIVE CLUTTA BACK GAGE

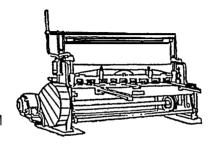
DO NOT ATTEMPT TO SHEAR IN JOG POSITION. TURN CLUTCH TO OFF WHEN NOT SHEARING.

SHEARS METAL SHEETS AND PLATES. MAXIMUM CAPACITY:1/4 INCH MEDIUM STEEL. SHEAR IS NORMALLY SET TO SHEAR1/16 INCH TO1/8 INCH THICKNESS, HAVE MACHINE OPERATOR MAKE ADJUSTMENTS, FOR THINNER OR THICKER METALS. MOTOR DRIVEN BACKSTOP IS FOR MULTIPLE CUTS UNDER 36 INCHES. KEEP FINGERS OUTSIDE OF GUARDS. ALWAYS HAVE METAL UNDER HYDRAULIC HOLD DOWN WHEN SHEARING. KEEP HANDS

CLEAR OF THIS CLAMPING ACTION. USE MIRRORS TO SEE THAT NO ONE WILL BE HIT BY WORKING OF SHEAR OR FALLING OF METAL. USE OVERHEAD CRANE OR GET HELP WHEN PLATES ARE HEAVY. THE GREEN LIGHT ON THIS MACHINE CAST' A SHADOW FOR SHEARING TO YOUR CUT. LINES.

WYSONG (772)
SHEARS SHEET METAL AND IS
SIMILAR IN OPERATION TO THE
LODGE AND SHIPLEY. HAS
MANUALLY OPERATED BACKSTOP.

MAXIMUM CAPACITY: 1/16 INCH MEDIUM STEEL.



# PULLMAX ( ) NAKES OTHER THAN STRAIGH

MAKES OTHER THAN STRAIGHT CUTS OF METAL. CUTS CIRCLES UP TO 24 INCH RADIUS, LARGER RADIUS REQUIRES EXTERNAL ADAPTER.

BEST CUTS ARE MADE WITH METAL IN HORIZONTAL POSITION.



LOCKING SCREW
ON OPPOSITE SIDE
MUST BE TIGHT
BEFORE USING
MACHINE.

LENGTH OF STROKE ADJUSTMENTS
UP FOR SHORT STROKE (THIN METAL)
MID-POINT FOR LONGER STROKE (THICKER METAL)
DOWN FOR LONGEST STROKE 3/16 INCH MEDIUM STEEL)

SEE THAT METAL IS HELD SECURELY, DO NOT ALLOW METAL TO RATTLE IN THE BLADES, THIS CAN DO DAMAGE TO YOUR HANDS, THE MACHINE AND THE METAL YOU ARE CUTTING.

#### **BUFFALO IRON WORKER (704)**

SHEARS ANGLE, FLAT, ROUND AND SQUARE BAR.

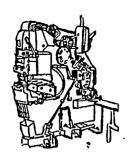
THIS MACHINE AL50 NOTCHES AND COPES

MAXIMUM CAPACITY: (IN INCHES) ANGLE BAR......4 X4 1/2

FLAT BAR... . . . . . . 5/8 X TO 1/4 X 93/8 ROUND BAR.. . . . . . . . 15/8DIAMETER

SQUARE . , . , . . . 11/2 X 11/2

ANGLE BAR CAN BE SHEARED AT ANGLES OTHER THAN 90° MAXIMUM CAPACITY: 3X3 X 5/18 AT 45DEG MI HOLD DOWN CLAMPS MUST BE USED TO SECURE METAL BEFORE ATTEMPTING TO SHEAR.



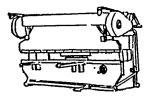
# POWER PRESS BREAKS (BENDING)

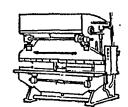
20 0 N

STURDY BENDER [730] (MACHINE OPERATOR ONLY)

+ CINDIN NATI

ENDS FLATTENS AND SHAPES METAL MAXIMUM CAPACITY: 1/8 INCH AT 14 FEET.





35 TON

DI ACRO PRESS BRAKE [705] (MACHINE OPERATOR ONLY)

UP TO 16 GAGE FITTINGS FORMED HERE MAXIMUM CAPACITY: 1/16 INCH AT 8 FEET.

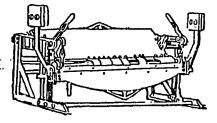
E DIAMOND 30 PRESS BRAKE [760] IS USED TO FORM VARIOUS NGER STRAPS.

### table LEAF AND BOX BRAKES

MANUALLY OPERATED TO BEND FORM SHEET METAL .

MAXIMUM CAPACITY: 16 GAGE.

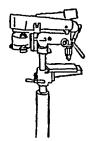
ADJUST SIDE LEVERS FOR MEN CLAMPING.



LOW **ONE** METAL THICKNESS BETWEEN **UPPER CLAMPING** ART AND EDGE OF HINGED LEAF. A T LE A S T

TE: A BASIC FACT IS THAT METAL HAS THICKNESS AND THIS THICKNESS MUST BE CONSIDERED AND ALLOWED FOR ON ALL BENDING AND FORMING OPERATIONS.

#### DRILL PRESSES



DRILLS HOLES USING DRILL BITS OR HOLE-SAWS.
MATERIAL BEING DRILLED MUST BE CLAMPED
OR OTHER WISE SECURED.
DO NOT LEAVE KEY IN CHUCK.
SPEED (RPM) CAN BE DIALED ON TWO VARIABLE
SPEED PRESSES - OTHERS REQUIRE CHANGING
BELT LOCATIONS ON THEIR PULLEYS. DISCONNECT

POWER BEFORE ATTEMPTING TO CHANGE THE BELT.

#### LOCKFORMERS [748,743,742)

[748] 16 GAGE MAXIMUM CAPACITY. [743] 18 GAGE MAXIMUM CAPACITY. ALSO FORMS 18 GAGE PIPE LOCK.

[742] 20 GAGE MAXIMUM CAPACITY- ALSO FORMS 1/4 INCH FLANGE UP.

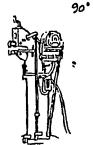


## LOCKFORMER EDGER [754]

FORMS 1/4 INCH FLANGE ON OTHER . THAN STRAIGHT EDGES.

PEXTO FORMER [757]

THIS MACHINE USED BASICALLY
TO FORM LAP OUT AND LAP IN.
SHRINKS DIAMETER OF ENDS OR ROUND
DUCT BY CORRUGATING THEM. FORMS,
BEADS, AND ROLLS EDGES. SMALLER
HAND OPERATED FORMERS DO THE
SAME WOKK ONLY ON THIN METAL.



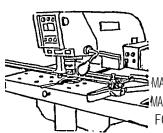
FORM

FLANGE,

E-FBT2

FORM

**EDGE** 



# PUNCH PRESS

#### WHITNEY DUPLICATOR [706]

(MACHINE OPERATOR ONLY)
PUNCHES HOLE5 IN METAL

MAXIMUM THICKNESS 1/4 INCH AT 2 INCH DIAMETER MAXIMUM DIAMETER 5 INCHES AT 1/8 INCH THICKNESS FORMS LOUVER OPENINGS.

SLOTTING AND CUTTING CAN BE DONE HERE.

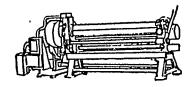
HE BUFFALO IRON WORKER ALSO HAS PUNCH CAPABILITY,

#### MAXIMUM 1/4 DIAMETER AT 5/8 INCH THICKESS.

TWO OTHER POWER PUNCHES #720 SMALL AND #516 MID. NOTE: THERE ARE SEVERAL BENCH MOUNTED PUNCHES THROUGHOUT SHOP.

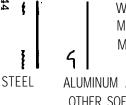
#### SLIP ROLLS

VARIOUS SIZES AND CAPACITIES
ARE FOUND IN THE SHOP. ALL WILL
OLL METAL INTO CYLINDERS AND
ALLOW CYLINDER TO SLIP OFF **THE**ND OF THE TOP ROLL.



OME ROUND BAR AND CONE SHAPE5 CAN BE FORMED HERE. POWER DRIVEN ROLLS ARE DESIGNED TO SHUT OFF WHEN FINGER IS REMOVED FROM SWITCH (DEAD MAN SWITCH). NO GLOVES, R LOOSE CLOTHING ARE PERMITTED BECAUSE OF THE POWERFUL INCH POINTS ON THESE MACHINES.

#### **BAND SAWS**

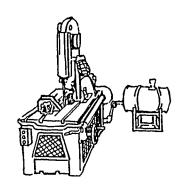


ALUMINUM AND OTHER SOFT METALS

(VARIABLE SPEEDS)
[SLOWER] [FASTER]

WHEN INSTALLING BAND SAW BLADES, TEETH MUST FACE OPERATOR AND TURN DOWN TOWARD METAL BEING CUT

BLADE GUIDES ARE ADJUSTABLE FOR HEIGHT AND SHOULD BE RAISED NO HIGHER THAN NECESSARY TO JUST CLEAR THE WORK.



#### MARVEL 8 BAND SAW [10093] SIMILAR TO OTHER BAND SAWS WITH

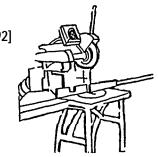
SIMILAR TO OTHER BAND SAWS WITH THESE ADDED FEATURES

- 1) METAL BEING CUT CAN BE QUICKLY CLAMPED.
- 2) BLADE CAN BE POSITIONED 45°TO EITHER SIDE OF VERTICAL.
- 3) VARIABLE SPEED.
- 4) SAVS DRY OR WITH COOLANT.
- 5) HAND OR SELF FEEDING FEATURE.

#### **ABRASIVE SAWS**

#### **BRILLIANT ABRASIVE SAW [10292]**

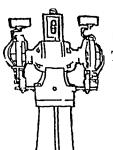
CUTS BY GRINDING A NARROW
SLOT THROUGH METAL. USED TO
CUT SHAPES -NOT SHEETS OR PLATE.
SHAPES BEING CUT MUST BE
SECURELY AND EVENLY HELD, TO
PREVENT BINDING OF SAW BLADE.



THE BRILLIANT ABRASIVE SAW HAS A 14 INCH BLADE AND MAKES ANGLE CUTS UP TO 45°. DUST EXHAUSTER MUST BE ON BEFORE THIS SAW WILL OPERATE.

THE MERCURY (734) ABRASIVE SAW MAKES SQUARE CUTS ONLY WITH A 20" BLADE.

#### **GRINDING**



PEDESTAL GRIN DERS (AND DISC SANDERS) ARE USED PRIMARILY TO REMOVE SMALL AMOUNTS OF METAL, TO DEBURR, TO TRUE UP AN IRREGULAR EDGE.

MAKE SURE TOOL RESTS ARE ABOUT 1/16 INCH FROM WHEEL OR DISC.

DO NOT GRIND ON SIDES OF WHEELS. GRIND ON HIGH SPOTS TO KEEP SURFACE WEAR EVEN. (DO NOT GOUGE).

FACE SHIELDS ARE REQUIRED ON ALL GRINDING OPERATIONS.

#### SECTION 4

#### 4.0 LAYOUTS AND MATERIAL FLOW

#### 4.1 Work Areas

In the several volumes describing the various standard shapes and the MOST-Analysis, you will find descriptions of the various FIT and WELD work places.

#### 4.2 <u>Material Flow</u>

The material used consists of 4x8 sheets ranging from 45 to 165 pounds each (see Section 1.3). These are stacked in a rack outside of the sheetmetal shop. As the fitters or layout people need material they procure a transfer cart, go out to the stock rack and load on the cart one or more sheets for moving to their bench.

Completed assemblies are usually moved on pallets with a fork truck.

#### SECTION 5

#### 5.0 PROCESS DATA

#### 5.1 Derivation of Process Times

The processes that are timed and used are rather short and do not consume much of the total. They are:

- 1. Plasma arc cutting on the Whitney Panel Master where the process time is known and programmed in by the CNC personnel.
- 2. Seam welding. When the analyst observes this process, the traverse time can be recorded. A digital indicator on the machine given the inches per minute weld speed.

#### 5.2 Technical Processes

The various technical processes used are determined by the product and by the machines required. A typical ventilation manufacturing cycle goes like this:

like this:

- 1. The part is planned and included in a sketch for shop instructions, dimensions, material thickness, etc.
- 2. If complicated a paper pattern is layed out to assist in determining the flat stretch out. Sometimes, as with a simple square section duct the fitter lays out his own work. Also, if planned for the CNC, the layout work is essentially done as part of the cutting process in the CNC machine. This is one of the real labor-saving aspects of a machine like the Whitney Panel Master-that de facto layout, marking, and cutting are all done as one quick part of the manufacturing process.
- 3. The sheetmetal is sheared to the proper size.
- 4. If not CNC, the material is "marked out" showing outline, bend lines, part number, etc.
- 5. The piece(s) is cut to the proper outline using a power shear, hand shear (powered unishear), nibbler, or punch.
- The piece(s) are formed in the brake (press or hand) or roll former and/or lock seam machine.
- 7. The fitter assembles the pieces into a 3-D shape using tack welding, Pittsburgh joints, riveting, etc.

- 9. The individual shapes are combined with other shapes or at the ends, temporarily attached flanges.
- 10. The part is inspected and goes to get painted.

#### 5.3 <u>Tool Life</u>

Tool life doesn't figure much in sheetmetal processes, but shear blades drills, punches, etc. do have to be sharpened or replaced on occasion. The foreman is responsible for this.

#### SECTION 6

#### 6.0 MANUAL METHODS

#### 6.1 Manual Methods

The manual methods, all listed in the backup data are described in great detail in the MOST-Analyses. Both the step by step manual method, referring to the Work Area Layout, and the MOST analysis, is listed for all of the standard shapes. Also information is included to add flanges, rivet to another shape, add access covers, end caps, and so on.

#### 7.0 STANDARD TIME CALCULATION

#### 7.1 Standard Data

For ease and convenience of use we worked up a chart, in conjunction with the people who will use the standard time, of the standard shapes and the appropriate standard time. A rather extensive analysis was made of past history of the yard (only a rough guide) as to the use and sizes of the standard shapes. As there was an expected tendency of the sizes to cluster around certain categories we plotted our data in hystograms in order to get the representative sample. For example we found groupings around areas of less than 100 square inches and more than 100 square inches. Using this and other criteria we developed a chart that is based on the users requirements and with an estimated accuracy of better than 10% - plenty good enough for our needs.

#### 7.2 How to Calculate Time Standards

Refer to the next two pages for our instruction sheet and "Sheetmetal Sketch Standard Data."

#### 7.3 Manning, Crew Size, and Job Classes

The shop is run by a general foreman with several foreman reporting to him. The foreman is an exempt, salaried position. Reporting to the foreman are working foremen, leadmen, and journeymen - all non-exempt jobs. The basic sheetmetal "fitter" fabricates from drawings and templates and operates certain shop equipment as assigned. The journeyman welders are assigned to the sheetmetal shop for welding operations. They don't usually weld until the unit is fitted and tacked in position.

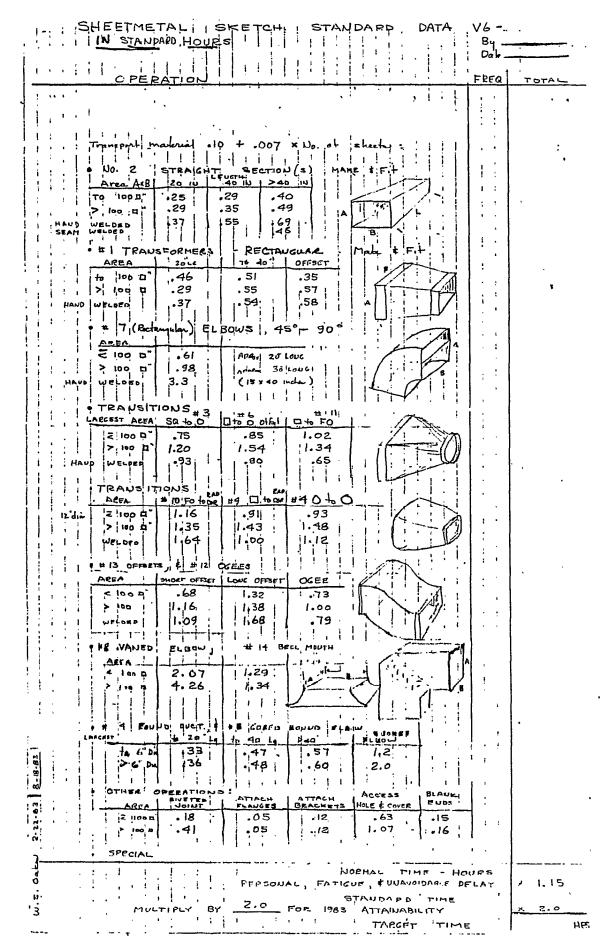
#### SHEETMETAL SKETCH

#### STANDARD DATA INSTRUCTIONS

- 1. Use a new sheet for each sketch,
- 2. Fill in part number, etc.
- 3. Circle the standard hour values that come closest to the shapes on the sketch. Use frequency to allow for more than one similar part.
- 4. Add time for' riveted joints, flange attachment, etc.
- 5. Total up, multiply by 1.15 to get standard time. NOTE: While this 15% adder for personal time, "relaxation allowance," unavoidable delays, and cleanup time may change, the concept of standard time does not change except to correct for errors.
- 6. Multiply by this years achievability factor, let's say 2.0 for example, to get target time for shop loading. This will change next year as we improve our efficiency.

STANDARD TIME: The time which is determined to be necessary for a qualified journeyman, working at a sustainable pace (8-hour day), with capable' supervision, with all tools and material required, to do a defined quantity of work.

STANDARD DATA: A published compilation of standard time values for well-defined and coded elements. Usually based on a visable, tangible, output item.



#### SECTION 8

#### 8.0 DATA SYNTHESIS AND BACKUP

#### 8.1 Summary

This was explained in Section 6.1 and 7.2.

#### SECTION 9

#### 9.0 ALLOWANCES

#### 9.1 <u>General</u>

Allowances have been arbitrarily set, for this Work Management Manual, at 15%. This will be reviewed in the future. The allowance is further subdivided to:

10% Personal: Forty-eight (48) minutes are allowed per day for

cleaning up, going to the toilet, etc.

2.5% Fatigue: It is understood that at times the work is physically

demanding. An allowance of twelve (12) minutes a day

is allowed for resting.

2.5% Delay: Occasionally there will be delay at the stockroom, or a

machine, and twelve (12) minutes a day (average) are

allowed for this.

Sheetmetal work, by its very nature is not very fatiguing, nor beset with delays. Often the fitters can observe the activity around him and mesh their time properly to avoid delays.

In practice, our standard time is built on the expectation of 6.96 hours a day of normal work and a little more than an hour (1.04 hours) allowed for personal, fatigue and expected delay.

#### APPENDICES

#### A. GLOSSARY OF TERMS

(A glossary of terms peculiar to local sheetmetal work)

Blackpen A heavy duty felt-tipped marking pen.

Cpunch Center punch.

Drillmotor Erroneously called an electric drill. A portable drill

motor chucks and turns a twist drill.

Extention When a square or round straight section is made part of a

conventional shape. For example an extension is often made part of an ell with no more separate pieces of

sheetmetal.

Lapout A powered Pexto machine that forms a 1/16 x 1" offset

collar on the end of a piece of duct. This outside offset facilitates the forming of a lays joint. In ventilation equipment the lapout joint is usually the downstream piece. See page 47 (machine number 757).

Redpen A heavy duty felt-tipped marking pen.

Shapes,

Standard shapes See Section 1.2.

Stinger The electrode holder of a welding machine.

Template A pattern (flat outline) of the developed sheetmetal part

made out of heavy paper or metal. They are used to guide the tracing of the outline on the metal - called the

stretch out before forming.

Unishear A powered hand-operated sheetmetal cutting shear. Will

cut rounded or straight cuts.

Visegrip A clamping type pair of pliers.

Weldor The journeyman who does the welding.

Welder A power supply and machine system to perform arc welding.

APPENDIX B

SAMPLE OF FORMS

SAMPLE FORM INSPECTION

# NATIONAL STEEL AND SHIPBUILDING COMPANY San Diego, California

De	partment or Area	Hull.	No.		Data	
Sk	ecci: V <u>6-</u>		-		Drawing No.	
For the following items place a check (V) N/A for not applicable. If unsatisfactory indicate corrective action.			lace	of the classic states	or the Accept or Reject $(\checkmark)$ in the reject	ct column and
-	Nature of Observations	Accept	Raject	No.	Nature of Defects	Nature of Corrective Act
	FABRICATION 1. Fabricated in Accordance with applicable drawings. (Includes Flanges)	,				
	Z. Ducts, Elbows, Etc. Fair and Smooti inside.	L		·		-
	3. Welds to leave a neat uniform appearance, free of excessive slag and fricles					
	4. Dampers, splitter and deflectors hemmed on leading edge.					•
	4. Total Observations.			•		
	REMARKS:					

SIGNATURE SHOP-SUPERVISOR

SIGNATURE Q.A. INSPECTOR

# Back-up MOST Analyses

### TRAUSPORTATION

#### File Description ? LOAD SHEETMETAL ON CART

## Output to line-printer <Y or N> ? N

39, 3) FIT W04MAREOT, MOO LOAD SHEETMETAL FOR TRANSPORT WITH CART AT SHEETMETAL SHOP OFG: 3 22-FEB-83 PER SHEET 4x8 - 16 GAUGE SHEETMETAL \* 2 OPERTAORS USED FOR LOADING FITTER BEGINS AT SHEETMETAL-STORAGE 1 PLACE SHEETMETAL2 ( 1 SHEET ) FROM SHEETMETAL-STORAGE TO CART AT SHEETMETAL-STORAGE F 2 A1 BO G1 2.00 120. 2 POSITION SHEETMETAL FROM CART WITH 2 STEPS AT WORKTABLE TO WORKTABLE WITH 8 STEPS A3 B3 G1 Al6 B0 F6 A0 1.00 290. 3 POSITION SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 8 STEPS B0 G1 A16 B0 P6 A0 1.00 240.

Type D, EH, CT, EX, T, W <or H for help> ? T MARKOT, MO1

#### File Description ? TRANSPORT FOR MARK OUT

Output to line-printer <Y or N>.?N

(39, 3)

FIT .WO4 MARKOT, MO1

TRANSPORT SHEETMETAL FOR MARK CUT AT SHEETMETAL SHOP
PER SKETCH OFG: 4 22-FED-83

4x8 x 16 GAUGE SHEETMETAL
\* METHOD FOR TYPICAL SKETCHES

\*: USED BY HARK CUT PEOPLE AND FITTERS FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES FROM WORKTABLE ( TEMPLATE STORAGE RACK ) TO WORKTABLE WITH 40 STEPS

Al B0 G1 A67 B0 F1 A0 1.00 700.

2 MOVE CART FROM TOOLROOM ( RANDOM SHOP LOCATIONS ) TO SHEETMETAL-STORAGE

A96 BO G1 A113 BO F1 A0 1.00 2110.
3 MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE PF 2 ( 4

Al B0 G1 (A152) B3 F1 A0 (2) 1.00 3100. 4 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 (4)

Al B0 G1 (A67 ) B0 P1 A0 (2) 1.00 1370. 5 MOVE CART FROM WORKTABLE TO MARKOUT-STORAGE PF 2 (4)

A67 B3 G1 (A67) B0 P1 A0 (2) 0.67 1373. MOVE CART FROM TOOLROOM ( RANDOM SHOP LOCATIONS ) TO

#### MARKOUT-STORAGE

F 2 / 3

A54 B0 G1 A54 B0 F1 A0 1.00 1100.
7 MOVE CART FROM MARKOUT-STORAGE ( WITH MARKED CUT SHEETMETAL ) TO WORKTABLE PF 2 ( 4 )

Al SO G1 (A67 ) B3 F1 A0 (2) 1.00 1400.

TOTAL TMU 11153...

TOTAL TMU

450.

**O** 

5HEEFMETAL SHAPE # 1

# . 8x6 to 10x4x16"LG TRANSFORMER

FAB	31150	<del></del>	
MARK OUT	14770	·	
TOTAL	45,920		

File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER  $\bigcirc$  utput to line-printer <Y or N> ? N 39, 3) FIT .W11 TRANSF.M90 MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOP OFG: 4 01-JUL-83 PER TRANSFORMER NASSCO SHEETMETAL SHAPE 1 \* 20 GAUGE GALV. SHEETMETAL \* 8"X6" TO 10"X4"X16" LG \* MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS Al B0 G1 A6 B0 P6 A0 1.00 140.

2	PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2		
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)	2.00	220.
4	Al BO Gl (Al BO P1 R16) A1 B0 Pi A0 (8) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 4	1.00	1480.
5	Al BO Gl Al BO P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	4.00	360.
	HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO PO F3) Al BO P1 A0 (4)	1.00	200.
	REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS  Al BO G1 A6 BO P3 A0  REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3	1.00	110.
,	STEPS  Al BO G1 A6 BO P3 A0	1.00	110.
8	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
9	Al BO Gl A6 BO P3 A0 HARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 1 6 ( 4 5 6 7 )	1.00	110.
10	Al BO Gl (Al BO Pl R3) Al BO Pl AO (16) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	840.
	USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16) A1 BO Pl A0 (5)	1.00	940.
11	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 ( 4 5 6 7 )		
12	ASIDE PF 47 ( 4 5 6 7 )  Al BO Gl (Al BO P1 R3) Al BO Pl A0 (47)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7)	1.00	2390.
	-Al BO G1 (Al BO Pl R3) Al BO P1 A0 (34)	1.00	1740.

BO GI (AI BO PI R3) AI BO PI AO (34) 1.00 1740

TOTAL TMU 8640.

#### File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER

utput to line-printer <y n="" or="">?N</y>		
39, 3) FIT .W11 TRANSF.M91 MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEE	CTMETAL	
SHOP PER TRANSFORMER  NASSCO SHEETMETAL SHAPE 1  * 20 GAUGE GALV. SHEETMETAL  * 8"X6" TO 10"X4"X16" LG  * HARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE	N-83	
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS Al BO Gl A6 BO P6 A0	1.00	140.
2 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH.3 STEPS		
Al BO Gl <b>A6</b> BO P3 A0 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7)	1.00	110.
A1 BO G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) 4 REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE WITH 3 STEPS	1.00	580.
Al BO G1 A6 BO P3 AO ,'5 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS	1.00	110.
Al BO G1 A6 B0 P3 A0 6 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	110.
Al BO Gl (Al BO P3 AO ) 7 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)	1.00	180.
Al BO Gl (Al BO Pl R3) Al BO Pl AO (8) 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	440 .
Al BO Gl (Al BO Pl R16) Al BO Pl AO (4)  9 MARK CONSTRUCTION INFMATION ON SHEETMETAL AT WORKTABLE  1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	1.00	760.
Al BO Gl (Al BO Pl R3) Al BO Pl AO (20) 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7	1.00	1040.
Al BO Gl (Al BO Pl R3) Al BO Pl A0 (34) 11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	1740.
Al BO Gl A6 BO P3 A0 12 MOUE CART FROM WORKTABLE TO SMALLSHEAR		
71 BO G1 767 BO D1 70	1 00	7.0.0

Al BO Gl A67 BO Pl A0

TOTAL TMU 6130.

1.00

700.

#### File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

y utput to line-printer <Y or N> ? N

( 39, 3) FIT . W 1 1 TRANSF.M92

SHEAR SHEETMETAL FOR TRANSFORMER WITH SMALL 8FT. SHEAR AT

SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 21-JUN-83

NASSCO SHEETMETAL SHAPE 1

\* 20 GAUGE GALV. SHEETMETAL

\* 8"X6" TO 10"X4"X16" LG

FITTER BEGINS AT SMALLSHEAR

1	POSITION	SHEETMET	A2L	FROM	CART	ΑT	SMALLSHEAR	TO	
	SMALLSHE	CAR WITH 4	4 ST	EPS E	7 2				

2	- <b>-</b>					
_		Gl A6	B0 P6	A0	2.00	280.
2 PUSH FOOTPEDAL AT SMALLS	SHEAR PRO	CESS				
	Al BO	Gl Ml	X6 IO	A0	1.00	90.
3 POSITION SHEETMETAL FRO	M SMALLSI	HEAR TO	SMALLSHE	AR F 8		
	Al BO	Gl Al	BO P6	A0	8.00	720.
4 PUSH FOOTPEDAL AT SMALL	SHEAR PRO	CESS F 8	3			
	Al BO	Gl Ml	X6 IO	A0	8.00	720.
5 PLACE SHEETMETAL FROM	SMALLSHEA	AR TO CAF	RT AT SMA	ALLSHEAR		
WITH 10 STEPS F 2						
	AL BO	Gl Al6	BO P3	A0	2.00	420.
6 MOUE CART FROM SMALLSHEA	AR TO WOR	KTABLE				
	Al BO	G1 A67	B3 P1	A0	1.00	730.

TOTAL TMU 2960.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

#### File Description ? SHEAR UNEVEN END OF TRANSFORMER

## putput to line-printer <Y or N> ? N

(39, 3)

FIT .W11 TRANSF.M93

SHEAR UNEVEN END OF TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 21-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8"X6" TO 10"X4"X16" LG
- \* USE UNI-SHEAR ON AREAS OF TRANSFORMER-
- \* -THAT CAN NOT BE CUT WITH 8FT. SHEAR

FITTER BEGINS AT WORKTABLE

1	PLACE	SHEETMETAL	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	4 STEPS						

	Al BO Gl A6 BO P3 A0	1.00	110. 🚄
	2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 BO Gl A96 B3 Pl A0	1.00	1970. 🕶
	3 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 2 STEPS		
	Al BO Gl A3 BO P6 A0	1.00	110. /
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 2		
	Al BO G1 M6 X173I0 A0	2.00	3620. 🗸
	5 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING		
	SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )		/
7	Al BO Gl (Al BO P3 C1) Al BO Pl AO		1240.
<b>-</b>	6 FASTEN CFLATTEN] SHEETMETAL CORNERS ON SHEETMETAL A	AT .	

WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )

Al BO Gl (Al BO PO F6) Al BO P1 AO (24) 1.00 1720.

7 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

Al BO Gl A6 BO P3 A0 1.00 110. 8 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE Al BO Gl A54 BO P1 A0 1.00 570.

TOTAL TMU 9450.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

12410

#### File Description ? FORM LAP END FOR TRANSFORMER

🗱 utput to line-Printer <Y or N> ? N

(39, 3)

TRANSF.M94 FIT .W11

FORM LAP END FOR TRANSFORMER WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1

\* 20 GAUGE GALV. SHEETHETAL \* 8"X6" TO 10"X4"X16" LG

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS	F 2								

• Prigri I • Porte Gritagri Pooge			Gl	<b>A6</b>	во	Р3	A0	2.00	220.
2 PUSH LAPOUT-SWITCH PROCE			~ 7				- 0		
					X16	_	-	2.00	<b>380</b> .
3 REPLACE SHEETMETAL FROM	LAPO	TUC	ro c	ART	AT L	APOU	T WITH		
4 STEPS F 2									
	Al	BO	Gl	Аб	BO	P3	A0	2.00	<b>220</b> .
4 MOUE CART FROM LAPOUT TO	PIT	TSBU	IRGH						
	Al	во	Gl	Аб	во	Р1	A0	1.00	90.
							шоша т	TIN AT T	010

TOTAL TMU 910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

13320

#### File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

### utPut to line-printer <Y or N> ? N

( 39, 3) FIT • W11 TRANSF.M95

FORM PITTSBURGH LUCK FOR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1 \* 20 GAUGE GALV. SHEETMETAL \* 8"X6" TO 10"X4"X16" LG FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2

_	Al BO G1 A6 BO P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	4 00	1 400
3	Al BO Gl Ml X32 IO A0 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2	4.00	1400.
J	STEPS F 4		
	A3 BO Gl Ml X0 I3 A0	4.00	320.
4	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH		
	WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
5	MOUE CART FROM PITTSBURGH TO LEAFBRAKE		
	AL BO Gl A32 BO P1 A0	1.00	350.

TOTAL TMU 2510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

15830

#### File Description ? BEND SHEETMETAL FOR TRANSFORMER

utput to line-Printer <Y or N> ? N

(39,3)

FIT.W11 TRANSF.M96

BEND SHEETMETAL FOR TRANSFORMER WITH LEAFBRAKE AT SHEETMETAL SHOP TRANSFORMER OFG: 4 22-JUN-83 PER

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8"X6" TO 10"X4"X16" LG
- \* BEND SIDES OF TRANSFORMER UP 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS	
	Al BO Gl A6 BO P6 A	1.00 140.
2	OPERATE LEAFBRAKE-LEVER PROCESS	
	Al BO Gl M6 X16 IO A	1.00 240.
3	POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE	
	Al BO Gl Al BO P6 A	1.00 90.
4	OPERATE LEAFBRAKE-LEVER PROCESS	
	111 20 01 110 1110 10 1	1.00 240.
5	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAF WITH 4 STEPS	FBRAKE
	Al BO Gl A6 BO P3 A	1.00 110.
6	MOUE CART FROM LEAFBRAKE TO PANBRAKE	
	Al BO Gl A42 BO Pl A	1.00 450.
	7	COTAL TMU 1270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,100

#### File Description ? BEND LAPAP ENDS FOR TRANSFORMER

utput to line-printer <Y or N> ? N

39. **3)** 

FIT .W11 TRANSF.M97

BEND LAP ENDS FOR TRANSFORMER WITH PANBRAKE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 22-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8"X6" TO 10"X4"X16" LG
- \* KINK UP LAP ENDS FOR TRANSFORMER

FITTER BEGINS AT PANBRAKE

Τ	POSTITON	I SHEE".	I'ME'T'AL2	F'ROM	CAR'	Г. Ч.І.	PAI	NBRAI	KE 1	$\Gamma O PI$	ANBRA	КĿ
	WITH 4	STEPS	F 2									
				I	Al I	30	Gl	Аб	во	Р6	<b>A</b> 0	

	Al BO Gl A6 BO P6 A0	2.00	280.
2	FASTEN [JAWS1 NUST TO SHEETMETAL AT PANBRAKE 5		
	WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE		
	Al BO Gl Al BO P3 F16 Al BO P1 A0	1.00	240.
3	OPERATE PANBRAKE-LEVER PROCESS F 2		
	Al BO Gl M6 X96 IO AO	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6		
	Al BO Gl Al BO P6 A0	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6		
	Al BO Gl M6 X96 IO AO	6.00	6240.
6	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE		
	Al BO Gl A54 B3 Pl A0	1.00	600.

TOTAL TMU 10200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

¿7300

#### File Description ? ASSEMBLE TRANSFORMER

# Jutput to line-printer <Y or N> ? N

FIT	9, 3) .W11 TRANF.M98  ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP TRANSFORMER OFG: 4 06-JU NASSCO SHEETMETAL SHAPE 1 * 20 GAUGE GALV. SHEETMETAL * 8"X6" TO 10"X4"X16" LG * JOIN TOP SECTION TO BOTTOM SECTION *WITH PITTSBURGH LOCK FITTER BEGINS AT WORKTABLE	L-83	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4		
2	Al BO Gl A6 BO P3 A0 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORTKABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5	4.00	440.
3	67) Al BO Gl (Al BO PO F6) Al BO Pl AO (4) POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE	1.00	320.
4	Al BO Gl Al BO P6 AO PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	1.00	90.
.) s	Al BO Gl Al BO P3 AO  FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES  USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	6.00	360.
6	Al BO G1 (Al BO PO F6) Al BO Pl AO (6) FASTEN SHEETMETAL TO SHEETMETAL AT LWORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	460.
7	A1 BO G1 (A1 BO PO F6) A1 BO P1 A0 (6)  FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	460.
8	Al BO Gl (Al BO PO F6) Al BO Pl AO (6)  FASTEN [BEND] SHEETMETAL CLAP FLANGES7 AT WORKTABLE 3  WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE  PF8 ( 4567 )	1.00	460.
۵	Al BO Gl (Al BO P3 FlO) Al BO Pl AO (8) INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	1.00	1160.
9	AO BO GO AO BO PO TIO AO BO PO AO	1.00	100.
	TOTAL TM	U	3850.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

# SHEEF METAL SHAPE

# 15"x9" to 10"x 14"x 18" LG TRANSFORMER

FAB.	34480	ZO MIN.
MARK out	15360	9 MIN.
TOTAL TMU	49 840	29 MIN.

#### File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

	-		
<b>્રિ</b> ા	atput to line-printer <y n="" or=""> ? N</y>		
( 39 FIT PER	9,101) .W12 TRANSF.M20  MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMET TRANSFORMER NASSCO SHEETMETAL SHAPE 1 * 20 GAUGE GALV. SHEETMETAL * 15"X9" TO 10"X14"X18" LG * MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1 00	1.40
2	Al BO Gl A6 BO P6 A0 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3	1.00	140.
3	Al BO Gl A6 BO P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	3.00	330.
4	Al BO Gl (Al BO Pl R16) A1 BO Pl A0 (8) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 4	1.00	1480.
5	Al BO Gl Al BO P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
6	Al BO Gl (Al BO PO F3) Al BO Pl AO (4) REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	200.
7	Al BO Gl A6 BO P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	110.
8	Al BO Gl A6 BO P3 A0 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1.00	110.
9	Al BO Gl A6 BO P3 A0 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 1 6 ( 4 5 6 7 )	1.00	110.
10	Al BO Gl (Al BO Pl R3) Al 80 Pl AO (16) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	840.
11	USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16 )A1 BO Pl A0 (5) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	940.
12	ASIDE PF 68 ( 4 5 6 7 )  Al BO G1 (Al BO Pl R3 )A1 BO Pl A0 (68)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7	1.00	3440.

Al BO Gl (Al BO Pl R3 )A1 BO Pl A0 (25) 1.00

TOTAL TMU 9350.

1290.

## TRANSF M.20

File Description ? HARK OUT SHEETMETAL FOR TRANSFORMER
Output to line-printer <Y or N> ?

### File Description ? MARK OUT TOP FOR TRANSFORMER

utput to line-Printer <Y or N> ? N

	<del>-</del>		
FIT	9,101)  ■ W12  TRANSF.M21  MARK OUT TOP FOR TRANSFORMER WITH AWL AT SHEETMETAL SHOF TRANSFORMER  NASSCO SHEETMETAL SHAPE 1  * 20 GAUGE GALv. SHEETMETAL  * 15'X9" TO 14"X10" LG  * MARK OUT USING TEMPLATE  FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1 00	1.40
2	Al BO Gl A6 BO P6 A0 PLACE-WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS	1.00	140.
3	Al B0 Gl A6 BO P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7	1.00	110.
4	Al BO Gl (Al BO Pl R16) Al BO Pl AO (3) REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	580.
5	Al BO Gl A6 BO P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	110.
6	Al BO Gl A6 BO P3 A0 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	110.
7	Al EO Gl Al BO P3 AO MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	4.00	240.
8	Al BO Gl (Al 80 Pl R3 )Al BO Pl AO (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	440.
9	USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO Gl (Al BO Pl Rl6 )A1 BO Pl A0 (3)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	1.00	580.
10	ASIDE IF 20 (4 5 6 7)  Al BO Gl (Al BO Pl R3 )Al BO Pl A0 (20)  MARK IDENTIFICAITON ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7	1.00	1040.
11	Al BO Gl (Al BO Pl R3 )A1 BO Pl A0 (34) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	1740.
12	Al EO Gl A6 HO P3 A0 MOUE CART FROM WORKTABLE TO SMALLSHEAR	2.00	220.
	Al BO Gl A67 BO Pl A0	1.00	700.

TOTAL TMU 6010.

File Descripion ? MARK OUT TOP FOR TRANSFORMER Output to line-printer <Y or N> ?

#### File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

output to line-Printer <Y or N> ? N

(39,101)

FIT • ₩12 TRANSF.M22

SHEAR SHEETMETAL FOR TRANSFORMER WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

\* 20 GAUGE GALV. SHEETMETAL \* 15"X9" TO lo"X14"X18" LG

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO		
	SMALLSHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO Gl Ml X6 IO A0	1.00	90.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 8		
_	Al BO Gl Al BO P6 A0	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8	0.00	720.
	Al BO Gl Ml X6 IO A0	8.00	720.
_		8.00	720.
5	PLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR		
	WITH 10 STEPS F 2		
	Al BO Gl Al6 BO P3 A0	2.00	420.
6	MOUE CART FROM SMALLSHEAR TO WORKTABLE		
-	Al BO Gl A67 B3 Pl A0	1.00	730.
	111 20 01 110 20 11 110		, 50.

TOTAL TMU 2960.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER Output to line-Printer <Y or N> ?

#### File Description ? SHEAR UNEVEN END OF TRANSFORMER

utput to line-printer <Y or N> ? N

(39,101)

FIT >W12 TRANS.M23

SHEAR UNEVEN END ON 'TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 15"X9" TO 10"X14"X18" LG
- FITTER BEGINS AT WORKTARLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al BO Gl A6 BO P3 A0 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	2.00	220.
_	A96 BO Gl A96 B3 Pl A0	1.00	1970 .
3	POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS		
	Al BO Gl A3 BO P6 A0	1.00	110.
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 2  Al BO Gl M6 X17310 A0	2.00	3620.
5	CUT CORNERS ON SHEETHETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )		
	Al BO Gl (Al BO P3 Cl )A1 BO Pl A0 (24)	1.00	1240.
6	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )		
	Al BO Gl (Al BO PO F6 )Al BO Pl AO (24)	1.00	1720.
7	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
8	MOVE CART FROM WORKTABLE TO LAPOUT MACHINE  Al BO Gl A54 BO Pl A0	1.00	570.

File Description ? SHEAR UNEVEN END OF TRANSFORMER Output to line-printer (Y or N> ?

12,630

9670 .

TOTAL TMU

#### File Description ? FORM LAP END ON TRANSFORMER

(T)

utput to line-printer <Y or N> ? N

(39,101)

FIT ● W12 TRANSF.M24

FORM LAP END ON TRANSFORMER WITH LAPOUT ROTARY MACHINE AT

SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

\* 20 GAUGE GALV. SHEETMETAL

\* 15"X9" TO lO"X14"X18" LG

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS	F 2								

	STEPS F 2									
		Al	BO	Gl	Аб	BO	Р3	A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCES	SS F	2							
		Al	EO	Gl	Ml	X16	IO	A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAI	L2 T	HROUG	H L	APOU	T MA	CHIN	E WITH		
	2 STEPS F 2									
		A3	ΕO	Gl	Ml	X0	I3	A0	2.00	1600
4	REPLACE SHEETMETAL FROM	LAPO	UT T	O CA	ART I	AT L	APOUT	r With		
	4 STEPS F 2									
		Al	BO	Gl	Аб	BO	Р3	A0	2.00	220.
5	MOVE CART FROM LAPOUT TO	PIT	<b>ISBUR</b>	2GH						
		AI E	<b>30</b> G]	L P	<b>A</b> 6	в0	Pl	A0	1.00	90.

TOTAL TMU 1070.

Fife Description ? FORM LAP END ON TRANSFORMER
Output to line-printer <Y or N> ?

13700

#### File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

### mutput to line-Printer <Y or N> ? N

(39,101)

FIT ● W12 TRANSF.M25

FORM PITTSBURGH LOCK FOR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL \* 15"X9" TO lo"X14"X18" LG
- \* MARK OUT USING TEMPLATE

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4		
	Al BO Gl Ml X32 IO AO	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4		
	A3 BO G1 M1 X0 I3 A0	4.00	320.
4	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F2	1100	320.
	Al BO Gl A6 BO P3 A0	2.00	220.
5	MOVE CART FROM PITTSBURGH TO LEAFBRAKE	_,,,	220.
	Al BO Gl A32 BO Pl A0	1.00	350.

File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER Output to line-printer <Y or N> ?

16,210

2510.

TOTAL TMU

# File Description ? BEND SHEETMETAL FOR TRANSFER output to line-printer <Y or N> ? N

(39,101)

FIT • W12 TRANSF.M26

BEND SHEETMETAL FOR TRANSFORMER WITH LEAFBRAKE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 15'X9' TO lO'X14'X18' LG
- \* BEND TRANSFORMER SIDES UP 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

	OM C.	ART Z	AT L	EAFBF	RAKE	TO			
LEAFBRAKE WITH 4 STEPS									
	Al	в0	G1	Аб	в0	Fб	A0	1.00	140.
OPERATE LEAFBRAKE-LEVER	PROC	CESS							
	ΔΊ	ΒO	Gl	Мб	X16	ΤO	ΔΛ	1 00	240.
DOCTUTOM CHEEDWEENT EDO			<u> </u>				110	1.00	210.
POSITION SHEETMETAL FROM	™ ₽₽						l _		
	Al	В0	G1	Al	В0	F6	A0	1.00	90.
OPERATE LEAFBRAKE-LEVER	PROC	ESS							
	7/1	BΛ	<b>C</b> 1	ME	<b>v</b> 16	ΤO	7. ()	1 00	240.
DEDITION CHIEFENATURE OF TOO							110	1.00	240.
REPLACE SHEETMETALZ FROM	I LEA	AF. BK	KE:	$\Gamma O CF$	ART. P	7.T. TF	:AFBRAKE		
WITH 4 STEPS									
	Δl	RΩ	G1	Α6	B0	Fβ	AΩ	1.00	110.
MOME CADE EDOM LEVEDDYRE					בס	1 3	110	1.00	110.
MOVE CARI FROM LEAFBRARE				_		- 1	7.0	1 00	450
	AI	B0	GΤ	A42	B0	ΡŢ	ΑU	1.00	450.
	LEAFBRAKE WITH 4 STEPS  OPERATE LEAFBRAKE-LEVER  POSITION SHEETMETAL FROM  OPERATE LEAFBRAKE-LEVER  REPLACE SHEETMETAL2 FROM  WITH 4 STEPS	LEAFBRAKE WITH 4 STEPS  Al OPERATE LEAFBRAKE-LEVER PROC Al POSITION SHEETMETAL FROM LE Al OPERATE LEAFBRAKE-LEVER PROC Al REPLACE SHEETMETAL2 FROM LEA WITH 4 STEPS Al	LEAFBRAKE WITH 4 STEPS  Al B0 OPERATE LEAFBRAKE-LEVER PROCESS Al B0 POSITION SHEETMETAL FROM LEAFBR Al B0 OPERATE LEAFBRAKE-LEVER PROCESS Al B0 REPLACE SHEETMETAL2 FROM LEAFBRA WITH 4 STEPS Al B0 MOVE CART FROM LEAFBRAKE TO PANE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 POSITION SHEETMETAL FROM LEAFBRAKE Al B0 G1 OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 REPLACE SHEETMETAL2 FROM LEAFBRAKE SWITH 4 STEPS Al B0 G1 MOVE CART FROM LEAFBRAKE TO PANBRAKE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6  POSITION SHEETMETAL FROM LEAFBRAKE TO I Al B0 G1 A1  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6  REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CA WITH 4 STEPS Al B0 G1 A6  MOVE CART FROM LEAFBRAKE TO PANBRAKE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0  OPERATE LEAFBRAKE-LEVER PROCESS  Al B0 G1 M6 X16  POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFF  Al B0 G1 Al B0  OPERATE LEAFBRAKE-LEVER PROCESS  Al B0 G1 M6 X16  REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART A  WITH 4 STEPS  Al B0 G1 A6 B0  MOVE CART FROM LEAFBRAKE TO PANBRAKE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0 F6  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 I0  POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE Al B0 G1 Al B0 F6  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 IO  REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LE  WITH 4 STEPS Al B0 G1 A6 B0 F3  MOVE CART FROM LEAFBRAKE TO PANBRAKE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0 F6 A0  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 I0 A0  POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE Al B0 G1 A1 B0 F6 A0  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 I0 A0  REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0 F3 A0  MOVE CART FROM LEAFBRAKE TO PANBRAKE	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0 F6 A0 1.00  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 I0 A0 1.00  POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE Al B0 G1 Al B0 F6 A0 1.00  OPERATE LEAFBRAKE-LEVER PROCESS Al B0 G1 M6 X16 IO A0 1.00  REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS Al B0 G1 A6 B0 F3 A0 1.00  MOVE CART FROM LEAFBRAKE TO PANBRAKE

File Description ? BEND SHEETMETAL FOR TRANSFER
Output to line-printer <Y or N> ?

17480

TOTAL TMU 1270.

File Description ? BEND SHEETMETAL LAP ENDS FOR TRANSFORMER output to line-printer <Y or N> ? N

(39,101)

FIT •W12 TRANSF.M27

BEND SHEETMETAL LAP ENDS FOR TRANSFORMER WITH PAN-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHEETMETAL SHAPE 1

\*20 GAUGE GAL SHEETMETAL

\* 15'X9' TO lO'X14'X18' LG

\* KING UP LAP ENDS AS PER INSTRUCTIONS

FITTER BEGINS AT PANBRAKE

1	POSITION	SHEETMETAL2	FROM	CART	ΑT	PANBRAKE	TO	PANBRAKE
	WITH 4 S	STEPS F 2						

	WIII 4 DIDIO F Z		
	Al BO Gl A6 BO F6 A0	2.00	280.
2	FASTEN NUT (JAWS) TO SHEETMETAL2 AT PANBRAKE 5		
	WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2		
	Al BO G1 Al BO P3 F16 A1 BO F1 AO	2.00	480.
3	OPERATE PANBRAKE-LEVER PROCESS F 2		
	Al BO Gl M6 X96 IO AO	2.00	2080.
4	POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 6		
	Al BO G1 Al BO P6 AO	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6		
	Al BO Gl M6 X96 IO AO	6.00	6240.
	6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
7	MOVE CART FROM PANBRAKE TO WORKTABLE		
	Al B0 Gl A54 B3 Fl A0	1.00	600.

TOTAL TMU 10440.

File Description ? BEND SHEETMETAL LAP ENDS FOR TRANSFORMER OUTPUT tO line-printer <Y or N> ?

27920

#### File Description ? ASSEMBLE TRANSFORMER

output to line-printer <Y or N> ? N

FIT	,101) •Wl2 TRANSF.M28  ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP  TRANSFORMER OFG: 4 29-JULY NASSCO SHEETMETAL SHAPE 1 * 20 GAUGE GALV SHEETMETAL * 15'X9' TO 10'X14'X18' LG FITTER BEGINS AT WORKTABLE	N-83	
1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2	0.00	000
2	Al B0 'G1 A6 B0 P3 A0 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (45 6 7 )	2.00	220.
3	Al B0 G1 (Al B0 P0 F6 )A1 B0 F1 A0 (4) POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS	1.00	320.
4	Al BO Gl A6 BO P6 AO PLACE SETTING TOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F6	1.00	140.
5	Al B0 Gl Al B0 F3 A0 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 (4567)	6.00	360.
6	Al B0 Gl (Al B0 PO F6 )A1 B0 Fl A0 (6) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES	1.00	460.
7	USING HAMMER AT' WORKTABLE AND ASIDE PF 6 (4567) Al B0 Gl (Al B0 PO F6 )Al B0 Fl A0 (6) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	460.
8	USING HAMMER AT WORKTABLE AND ASIDE PF 10 (4567) Al B0 Gl (Al B0 P0 F32 )A1 B0 P1 A0 (10) FASTEN [BEND] SHEETMETAL CLAP FLANGES3 AT WORKTABLE 3	1.00	3340.
	WRIST-STROKES USING HANDFORMERS AT WORKTABLE AND ASIDE P F 8 ( 4 5 6 7 ) Al BO Gl (Al BO P3 FlO )Al BO Pl AO (8)	1.00	1160.
9	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0	1.00	
	TIOTIA I TIMI	·T	<b>C C C O</b>
	TOTAL TM	J	0000.

File Description ? ASSEMBLE TRANSFORMER

34480

Output to line-printer <Y or N> ?

# 10"x12" to 12"x10"x18" LG TRANSFORMER

FAB	20920	13. MIN	13730
MARK OUT	16210	16 MIN-	11900
WELD	19150	11 MIN	2735c
TOTAL TMU:	56,280	34 MIN.	53,61.6

### File Description ? MARK OUT SHEETMETAL FOR TRANSFORMER

# Dutput to line-printer <Y or N> ? N

FIT	(39,101) •W11 TRANSF.MO1		
	MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEET MET		P
PER	TRANSFORMER OFG: 4 23-JU NASSCO SHEET METAL SHAPE 1	JN-83	
	* 11 GAUGE GALV. SHEET METAL * 10'X12' TO 12'X10'X18' LG		
	* MARK OUT USING TEMPLATE		
	FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE. FROM WORKTABLE TO SHEET METAL AT WORKTABLE WITH 3 STEPS  Al B0 Gl A6 B0 P6 A0	1.00	140.
2	PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F2		
3	-Al B0 Gl A6 B0 P3 A0 MARK LINE FROM TEMPLATE TO SHEET METAL AT WORKTABLE 5	2.00	220.
	DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 (4 567		
4	Al BO Gl (Al BO P1 R16 )Al BO Pl AO (8)	1.00	1480.
	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABI Al B0 Gl Al B0 P6 A0	1.00	90.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 (4567)		
c	Al B0 Gl (Al B0 PO F3 )Al B0 Fl A0 (4) REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE.	1.00	200.
0	WITH 3 STEPS F 2		
7	Al B0 Gl A6 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO	2.00	220.
	WORKTABLE WITH 3 STEPS Al B0 Gl A6 B0 P3 A0	1.00	110.
8	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	1.00	110.
	WORKTABLE WITH 3 STEPS Al B0 Gl A6 B0 P3 A0	1.00	110.
9	MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF		
	16(4567)	1 00	0.40
10	Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (16) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	840.
	REDPEN AT WORKTABLE AND ASIDE PF 47 (4567) Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (47)	1 00	2390.
11	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	2370.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 ( 4 56 7)		
12	Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (47) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	2390.
	USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 (4567		
	Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (34)	1.00	1740.

TOTAL TMU 9930.

	,9101) .w12 TRANSF.M02 MARK OUT SHEETMETAL TOP FOR TRANSFORMER WITH AWL AT SHEE	TMETAL	
	TRANSFORMER  NASSCO SHEETMETAL SHAPE 1  * 11 GAUGE GALV. SHEETMETAL  * 10'X12' TO 12'X10'  * MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE	N-83	
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1 00	140
2	Al B0 Gl A6 B0 P6 A0 PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1.00	140.
3	Al B0 Gl A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 (4567	1.00	110.
4	A1 B0 Gl (Al B0 Pl R16 )A1 B0 P1 A0 (3) REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	580.
5	Al B0 Gl A6 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	110.
6	Al B0 Gl A6 B0 P3 A0 PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF.4 (4567)	1.00	110.
7	Al BO Gl (Al BO P3 AO) MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 8 (4567)	1.00	180.
8	Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	440.
9	USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4567) Al B0 Gl (Al B0 Pl R16) A1 B0 Pl A0 (4) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	760.
10	ASIDE PF 20 (4567) Al B0 Gl (Al B0 Pl R3) Al B0 Pl A0 (20) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 (4567)	1.00	1040.
11	Al B0 Gl (Al B0 Pl R3) Al B0 Pl A0 (20) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	1040.

File Description ? MARK OUT SHEETMETAL TOP FOR TRANSFORMER OutPut to line-printer <Y or N> ?

Al B0 Gl A6 B0 F3 A0 12 MOVE CART FROM WORKTABLE TO 14FT. SHEAR

Al B0 Gl Al52B0 Pl A0

2.00

1.00

TOTAL TMU 6280.

220.

1550.

WITH 4 STEPS F 2

### File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N) ? N

(39,101)

FIT \_w12 TRANSF.MO3

SHEAR SHEETMETAL FOR TRANSFORMER WITH 14FT SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 23-JUN-83

NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV, SHEETMETAL
- \* 10'X12' TO 12'X10'X18' LG
- \*c MARK OUT USING TEMPLATE

FITTER BEGINS AT 14FT.SHEAR

1	POSITION	SHE	ETMET	AL.	2 FROM	CA	RΤ	AT	14F'	Γ.5	SHEAR	TO	
	14FT.SH	EAR	WITH	4	STEPS	F2							
					A	1	80	G	1 <i>P</i>	46	в0	Р6	

	TILL OHDING WITH I	J T D T Z	-							
		A1	80	Gl	Аб	в0	Pб	A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOT	PEDALL	PROC	CESS	F2					
		Al	в0	Gl	Ml	х3	IO	A0	2.00	120.
3	POSITION SHEETMETAL2	FROM 1	4FT.	SHEA	R TO	14F	T.SH	EAR F7		
		Al	в0	Gl	Al	B0	Рб	A0	7.00	630.
4	PUSH 14FT.SHEAR-FOOT	PEDALL F	PROCE	SS F	' 2					
		Al	в0	Gl	Ml	X3	IO	A0	2.00	120.
_	DIAGE GUIDEMARENATO ED	ON / 1 / DO	~		~~~		1 1 -			

								$\sim$ $\pm$				110	00	
5	PLACE	SHE	ETMETA	L2	FROM	14FT	.SHEAR	TO	CART	AT	14F'	T.SHEAR		
	WITH	10	STEPS	5 F2	2									
					A	.1	в0	G1	Al6	В0	Р3	A0	2.00	420.
6	MOVE	CART	FROM	14F	T.SHE	AR TO	O WORK	TABI	LE					

О	MOAR	CART	FROM	14FT.SHEAR	TO	WOR	KTAE	3LE				
				Ž	Al	В0	G1	A152B3	Pl	A0	1.00	1580.

TOTAL TMU 3150.

File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ?

#### e <TRANSF.M04> ?

File Description ? CUT SHEETMETAL FOR TRANSFORMER

( "DOutput to line-Printer <Y or N> ? N

 $\begin{array}{c} (39,101) \\ \text{FIT} \quad \bullet \text{W} 12 \end{array}$ 

TRANSF.M04

CUT SHEETMETAL FOR TRANSFORMER' WITH SABER-SAW AT SHEETMETAL SHOP TRANSFORMER 0 F G: 4 23-JUN-83 PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* IO'X12' TO 12'XIO'X18' LG \* CUT AREA THAT CAN NOT BE CUT ON --
- \* --SHEAR AND CORNERS

#### FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F2		
Al BO Gl A6 BO F3 AO	2.00	220.
2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
A96 B0 Gl A96 B3 Pl A0	1.00	1970.
3 POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT		
WORKTABLE F13		
Al BO Gl Al BO P6 AO	13.00	1170.
4 OPERATE SABER-SAW AT WORKTABLE PROCESS F15		
Al BO Gl M6 X67 IO AO	15.00	11250.
5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F2		
Al BO Gl A6 BO P3 A0	2.00	220.
6 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE		
Al BO Gl A96 BO Pl A0	1.00	990.
TOTAL '	TMU	15820.

File Description ? CUT SHEETMETAL FOR TRANSFORMER

18,270

Output to line-printer <Y or N> ?

#### File Description ? BEND SHEETMETAL FOR TRANSFORMER

output to line-printer <Y or N> ? N

1	39	`	7	$\sim$	-	١.
- (	٧,	4	- 1	( )	- 1	)
١.	J.	,	_	$^{\circ}$	_	,

FIT •W12 TRANSF.MO5

BEND SHEETMETAL FOR TRANSFORMER WITH 14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 23-JUN-83

NASSCO SHEETMETAL SHAPE 1

\* 11 GAUGE GALV . SHEETMETAL

\* 10'X12' TO 12'X10'X18' LG FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE		
	TO 14FTHYDROPRESSBRAKE WITH 4 STEPS		
	Al BO Gl A6 BO P6 A0	1.00	140.
2	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS		
	Al BO Gl Ml X24 IO AO	1.00	270.
3	POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO		
	14FTHYDROPRESSBRAKE WITH 4 STEPS		
	Al BO Gl A6 BO P6 A0	1.00	140.
4	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS		
	-Al BO Gl Ml X24 IO AO	1.00	270.
5	REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT		
	14FTHYDROPRESSBRAKE WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.

Al BO Gl A96 B3 Pl A0 1.00

TOTAL TMU 1950.

File Description ? BEND SHEETMETAL FOR TRANSFORMER

6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE

209.20

1020.

#### Please-input file <TRANSF.M06> ?

1	
٠,	. 1

#### le Description ? WELD TRANSFORMER

#### OutPut to line-Printer <Y or N> ? N

(39,101)

TRANSF.MO6 WELD .WOl

WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH DFG; 4 19-JUL-83 PER TRANSFORMER

WELDING NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL \* 10'X12' TO 12'X10'X18' L
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS THE WORK

* FITTER TRANSPORTS SHEETMETAL		
FITTER BEGINS AT WORKTABLE		
FILLER BEGINS AL WORKLABLE		
1 FIMMED DINGE GURRAMEMAI AGGEMDIN EDOM MODUMADIE MO GADM		
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
AT WORKTABLE WITH 4 STEPS F 2		
Al BO Gl A6 BO P3 A0	2.00	220 •
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE		
-Al BO Gl Al3lB3 Pl AO	1.00	1370 •
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO		
WELDTABLE WITH 4 STEPS F 2		
Al BO Gl A6 BO P3 A0	2.00	220 •
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
A3 B0 G1 M1 X0 IO A32	1.00	370 •
5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370 •
WELDMACHINES TO ON AT WELDMACHINES	1 00	
Al BO Gl M3 XO IO Al	1.00	60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE		
TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
A3 B3 G1 A1 B0 P6 A0	2.00	280.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
Al BO Gl Ml X10 IO AO	2.00	260.
8 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1		
WRIST-TURN USING HAND F 8		
Al BO Gl Al BO Pl F3 AO BO PO AO	8.00	560,
9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8	0.00	3007
Al BO Gl Ml XO IO Al	8.00	320 .
10 POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL	0.00	J20 .
AT WELDTABLE F 8	0 00	700
Al BO G1 Al BO P6 AO	8.00	720 .
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F		
6		
Al BO Gl M6 X17310 AO	6.00	10860.
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8		
Al BO Gl Ml XO IO Al	8.00	320.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT		
WELDTABLE 5 STRIKES USING SLAGHAMMER AT WELDTABLE		
ASIDE PF 3 ( 4 5 6 7 )		
A1 B0 Gl (Al B0 P0 L16 )A1 B0 Pl A0 (3)	1.00	550.
14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10	1.00	000.
11 Made Color Made 1000 Median 11 Made 110		

# ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 1 2 ( $4\ 5\ 6\ 7$ )

		<b></b> _ (	5 0	, ,											
			Al	в0	Gl (	Al BC	) Pl	ClO	)A1	в0	Pl	A0	(12)	1.00	1480.
	15	REPLACE	SHE	ETMET	ral as	SEMBLY	7 FRC	M WEI	LDTAB:	LE T	O CA	RT A	$^{ m T}$		
		WELDTAE	SLE I	HTTW	4 STE	PS F 2	)								
_						A	l во	Gl	Аб	В0	P3	A0		2.00	220.
ŕ	16	FITTER A	SVOY	CART	r From	WELDI	<b>TABLE</b>	. TO (	WORKT	ABLE					
•	-								A131			A0		1.00	1340.

TOTAL TMU 19150.

File Description ? WELD TRANSFORMER

OUtPut to line-printer <Y or N> ?

# SHEET METAL SHAPE #

# 7"x6" to 8"x7"x 31-"LG, TRANSFORMER

<u>FAB</u>	37,360	2 2 MIN.	
MARK out	13.950	8 MIN.	
TOTAL TMU.	5/3/0	3.1 MIN.	

#### File Description ? MARK OUT TRANSFORMER

Output to line-Printer <Y or N> ? N

39,	1)	
דידים		

WITH AWL AT SHEETMETAL SHOP

TRANSF.M30 MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER PER TRANSFORMER OFG: 4 18-MAY-83 NASSCO SHEETMETAL SHAPE 1 \* 20 GAUGE GALV. SHEETMETAL \* 7.X6' TO 8'X7'X31' RECT, TO --\* --RECT. TRANSFORMER \* MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 Al BO Gl A3 BO P6 A0 2.00 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WTIH 3 STEPS F 4 4.00 Al B0 Gl A6 B0 P6 A0 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 5 Al BO Gl (Al BO Pl R16 )Al BO Pl AO (16) 1.00 2920. 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE Al BO Gl Al BO P6 AO 6.00 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO Gl (Al BO PO F3 )A1 B0 Pl A0 (6) 5 REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 5 Al BO Gl A6 BO Pl A0 7 REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO

1.00 280. 6.00 540. WORKTABLE WITH 2 STEPS F 2 2.00 120. Al BO Gl A3 B0 Pl A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) (Al BO Pl R16 )Al BO Pl AO (16) 1.00 2920. Al BO Gl 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT

WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 45 ( 4 5 67 ) Al BO G1 (Al BO Pl R3 )A1 BO Pl A0 (45) 1.00 2290. 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7

1.00 2640. Al BO Gl (Al BO Pl R3 )A1 BO Pl A0 (52) 11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

2.00 220. Al B0 Gl A6 B0 P3 A0 12 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR Al B0 Gl A67 B0 P1 A0 1.00 700.

> TOTAL TMU 13950.

220.

560.

540.

#### File Description ? SHEAR SHEETMETAL FOR TRANSFORMER

# Output to line-printer <Y or N> ? N

(39,	1 )	
FIT	.w11	

TRANSF.M31

FIT SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

DFG: 4 18-MAY-83 PER TRANSFORMER

NASSOC SHEETMETAL SHAPE 1

\* 20 GAUGE GALV, SHEETMETAL

- \* 7.X6' TO 8'X7'X31'L RECT. TO --
- \* --RECT. TRANSFORMER
- \* COMPLETE SHEARING AT WORKTABLE --
- \* -- WITH UNI-SHEAR

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4. STEPS F 2		
	Al BO Gl A6 BO F6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	Al BO Gl Ml X5 IO AO	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8		
	Al BO Gl Al BO P6 AO	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 12		
	Al BO Gl Ml X5 IO AO	12.00	1080.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 10 STEPS F 2		
	Al BO Gl Al5 BO P3 AO	2.00	420.
	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE		
	Al BO Gl A67 B3 P1 A0	1.00	730.

TOTAL TMU

3410.

TYPE D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

#### File Description ? CUT CORNERS FOR TRANSFORMER

## (Dutput to line-printer <Y or N> ? N

( 399	1)	

FIT • Wll TRANSF.M32

CUT CORNERS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH SNIPS AT SHEETMETAL SHOP

DFG: 4 11-JUL-83 PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV, SHEETMETAL \* 7.X6. TO 8.X7.X31. LG RECT.--
- \* --TO RECT. TRANSFORMER
- \* FLATTEN CORNERS AFTER CUTTING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 Gl A96 B3 Pl A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 2		
	Al BO Gl M6 X173IO AO	2.00	3620.
4	CUT CORNERS ON SHEETMETAL AT WORKTBLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 5 7 )		
	Al BO Gl (Al BO P3 C3 )Al BO P1 AO (16)	1.00	1160.
5	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES		
	USING ; HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
_	Al B0 G1 (Al B0 PO F6 )A1 B0 P1 A0 (16)	1000	1160.
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS		
_	Al B0 Gl A6 B0 P3 A0	1.00	110.
'/	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT	1 00	
	Al B0 Gl A54 B0 Pl A0	1.00	570.

TOTAL TMU 8810.

12,220 Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FORM LAP ENDS FOR TRANSFORMER

Output to line-Printer <Y or N> ? N

(39,1)

TRANSF.M33 FIT .W11

FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH

LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

PER TRANSFORMER OFG:4 18-MAY-83

NASSCO SHEETMETAL SHAPE 1

\* 20 GAUGE GALV. SHEETMETAL

\* 7'X6' TO 8'X7'X31'L RECT. TO --

\* -- RECT. TRANSFORMER

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL2	FROM	CART	AT	LAPOUT	TO	LAPOUT	$\mathtt{WITH}$	4
	STEPS	S F2								

	STEPS F2								
		Al BO	Gl	Аб	в0	P3	A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCES	SS F 2							
		Al BO	Gl	Ml	Xl6	IO	A0	2.00	380.
3	PUSH AND GUIDE SHEETMETA	L THROU	JGH LA	APOU'	r Wil	гн 2	STEPS		
	F 2								
		A3 B0				I3		2.00	160.
4	REPLACE SHEETMETAL FROM	LAPOUT	TO C	ART I	AT L	APOU'	r With		
	4 STEPS F 2		~.7		- 0		- 0		
_		Al BO	_			P3	A0	2.00	220.
5	MOVE CART WITH SHEETMETA	_	_	_	_	I.I.S.B.	_	1 00	
		AL BO	Gl	Α6	В0	PT	A0	1.00	90.

TOTAL TMU 1070,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13,290

#### File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER

output to line-Printer <Y or N> ? N

(39,1) FIT .Wll TRANSF.M34

FORM PITTSBURGH LOCK FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 11-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 7'X6' TO 8'X7'X3L'L RECT. TO --
- \* -- RECT. TRANSFORMER
- \* FORM PITTSBURGH ON BOTTOM SECTION AND--
- \* -- 90 DEGREE EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	Al B0 Gl A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4		
	Al BO Gl Ml X32 IO AO	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 2 STEPS F 4		
	A3 B0 Gl Ml X0 I3 A0	4.00	320.
4	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
5	MOVE CART FROM PITTSBURGH TO LEAFBRAKE		
	Al B0 Gl A32 B0 P1 A0	1.00	350.

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

15,800

2510.

TOTAL TMU

## File Description ? BEND SHEETMETAL FOR TRANSFORMER output to line-Printer <Y or N> ? N

(39, 1)

TRANSF.M35 FIT •W11

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH LEAF BRAKE AT SHEETMETAL SHOP

OFG: 4 11-JUL-83 PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL
- \* 7'X6' TO 8'X7'X31' RECT. TO --
- \* -- RECT TRANSFORMER
- \* BEND UP SIDES OF TRANSFORMER 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FR	OM CA	RT A	T LE	AFBE	RAKE	TO		
	LEAFBRAKE WITH 4 STEPS								
		Al	В0	Gl	Аб	В0	Р6	A0	1.00
2	OPERATE LEAFBRAKE-LEVER	R PROC	ESS						
		Al	В0	Gl	Мб	X16	IO	A0	1.00

- 3 POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE Al BO Gl Al BO P6 AO 1.00 90.
- 4 OPERATE LEAFBRAKE-LEVER PROCESS Al BO Gl M6 X16 IO AO 1.00 240.
- 5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS Al B0 Gl A6 B0 P3 A0 1.00 110. 6 MOVE CART FROM LEAFBRAKE TO PANBRAKE Al B0 Gl A42 B0 Pl A0 1.00

TOTAL TMU 1270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

17,070

450 •

140.

240.

#### File Description ? BEND LAP ENDS FOR TRANSFORMER

output to line-printer <Y or N> ? N

(39,1) FIT •W11 TRANSF.M36

BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH PANBRAKE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 12-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL \* 7'X6' TO 8'X7'X31' RECT. TO --
- \* --- RECT. TRANSFORMER
- \* KINK UP LAP ENDS TO OFFSET ANGLE

FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBUITH 4 STEPS F 2	RAKE	
	Al BO Gl A6 BO P6 A	0 2.00	280.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE	5	
	Al BO Gl Al BO P3 FL6 Al BO Pl A	0 1.00	240.
3	OPERATE PANBRAKE-LEVER PROCESS F 8		
	Al BO G1 M6 X96 IO A	8.00	8320,
4	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBR. WITH 4 STEPS F 2	AKE	·
	Al BO Gl A6 E0 P3 A	0 2.00	220.
5	MOUE CART FROM PANBRAKE TO WORKTABLE		
	Al BO Gl A54 B3 Pl A	0 1.00	600.
	T	OTAL TMU	9660.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W (or H for help) ?

26730

File Description 7 ASSEMBLE TRANSFORMER
Output to line-printer <Y or N> ? N

(39,1) FIT *WI1 TRANSF.M37  ASSEMBLE TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP PER TRANSFORMER  NASSCO SHEETMETAL SHAPE 1 * 20 GAUGE GALV. SHEETMETAL * 7'X6' TO 8'X7'X31 RECT. TO * RECT TRANSFORMER * FLATTEN CORNERS BEFORE ASSEMBLING FITTER BEGINS AT WORKTABLE  1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS Al BO Gl A6 BO P3 AO 1.00 110. 2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO PO F6) Al EO Pl AO (4) 1.00 320. 3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS Al BO Gl A6 RO F6 AO 1.00 140. 4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12 Al BO Gl Al BO P6 AO 12.00 1080. 5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al BO Gl (Al BO PO F6) Al BO P1 AO (12) 1.00 880. 6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al BO Gl (Al BO PO F10)Al EO P1 AO (12) 1.00 1360. 7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al BO Gl (Al BO PO F10)Al EO P1 AO (12) 1.00 1360. 7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al BO Gl (Al BO PO F32) Al BO P1 AO (20) 1.00 6640. 8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS AO BO GO AO BO PO T10 AO BO PO AO 1.00 100.	_		
## WITH 4 STEPS  Al B0 Gl A6 B0 P3 A0 1.00 110.  2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )  Al B0 Gl (Al B0 P0 F6) Al E0 Pl A0 (4) 1.00 320.  3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS  Al B0 Gl A6 R0 F6 A0 1.00 140.  4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12  Al B0 Gl Al B0 P6 A0 12.00 1080.  5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)  Al B0 Gl (Al B0 P0 F6) Al B0 P1 A0 (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)  Al B0 Gl (Al B0 P0 F10)Al E0 P1 A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567)  Al B0 Gl (Al B0 P0 F32) Al B0 P1 A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.	FIT	* FLATTEN CORNERS BEFORE ASSEMBLING	
2 FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 Gl (Al B0 PO F6) Al E0 Pl A0 (4) 1.00 320.  3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS Al B0 Gl A6 R0 F6 A0 1.00 140.  4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12 Al B0 Gl Al B0 P6 A0 12.00 1080.  5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al B0 Gl (Al B0 P0 F6) Al B0 Pl A0 (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al B0 Gl (Al B0 P0 F10)Al E0 Pl A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al B0 Gl (Al B0 P0 F32) Al B0 Pl A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.	1		
Al BO Gl (Al BO PO F6) Al EO Pl AO (4) 1.00 320.  3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS  Al BO Gl A6 RO F6 AO 1.00 140.  4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12  Al BO Gl Al BO P6 AO 12.00 1080.  5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7)  Al BO Gl (Al BO PO F6) Al BO Pl AO (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)  Al BO Gl (Al BO PO F10)Al EO Pl AO (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567)  Al BO Gl (Al BO PO F32) Al BO Pl AO (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  AO BO GO AO BO PO TIO AO BO PO AO 1.00 100.	2	FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND	110.
Al B0 Gl A6 R0 F6 A0 1.00 140.  4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12  Al B0 Gl Al B0 P6 A0 12.00 1080.  5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al B0 Gl (Al B0 P0 F6) Al B0 Pl A0 (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al B0 Gl (Al B0 P0 F10)Al E0 Pl A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al B0 Gl (Al B0 P0 F32) Al B0 Pl A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 G0 A0 B0 P0 Tl0 A0 B0 P0 A0 1.00 100.	3	Al BO Gl (Al BO PO F6) Al EO Pl AO (4) 1.00 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL	320.
WORKTABLE F 12  Al B0 Gl Al B0 P6 A0 12.00 1080.  5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al B0 Gl (Al B0 P0 F6) Al B0 Pl A0 (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al B0 Gl (Al B0 P0 F10)Al E0 Pl A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al B0 Gl (Al B0 P0 F32) Al B0 Pl A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.	1	Al B0 Gl A6 R0 F6 A0 1.00	140.
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4 5 6 7) Al BO Gl (Al BO PO F6) Al BO Pl AO (12) 1.00 880.  6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al BO Gl (Al BO PO F10)Al EO Pl AO (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al BO Gl (Al BO PO F32) Al BO Pl AO (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS AO BO GO AO BO PO TLO AO BO PO AO 1.00 100.	4	WORKTABLE F 12	1080.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567) Al B0 Gl (Al B0 PO Fl0)Al E0 P1 A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al B0 Gl (Al B0 PO F32) Al B0 P1 A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 P0 Tl0 A0 B0 PO A0 1.00 100.	5 1	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES	
Al B0 Gl (Al B0 PO Fl0)Al E0 Pl A0 (12) 1.00 1360.  7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 (4567) Al B0 Gl (Al B0 PO F32) Al B0 Pl A0 (20) 1.00 6640.  8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 P0 Tl0 A0 B0 PO A0 1.00 100.	6	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES	880.
Al B0 Gl (Al B0 PO F32) Al B0 Pl A0 (20) 1.00 6640. 8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 P0 Tl0 A0 B0 PO A0 1.00 100.	7	Al BO Gl (Al BO PO FlO)A1 EO P1 AO (12) 1.00	1360.
A0 B0 GO A0 B0 P0 T10 A0 B0 PO A0 1.00 100.	•	Al BO Gl (Al BO PO F32) Al BO P1 AO (20) 1.00	6640.
TOTAL TMU 10630.	8		100.
		TOTAL TMU	10630.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

3.7,360

File Description ? MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER Output to line-printer <Y or N> ? N

FIT WITH	MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR AWL AT SHEETMETAL SHOP	TRANSFORMER 18-MAY-83	
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
2	Al B0 Gl A6 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 5	2.00	280.
3	Al E0 Gl A6 B0 P6 A0 MARK OUTLINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USI	5.00 NG	700.
4	AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16) A1 BO Pl A0 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	(16) 1.00	2920.
_	WORKTABLE F 6  Al B0 Gl Al B0 P6 A0  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE US	6.00	540.
	HAMMER. AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )  Al BO Gl (Al BO PO F3) Al BO Pl AO  REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTA	(6) 1.00	260.
0	WITH 4 STEPS F 6  Al BO Gl A6 HO Pl A0	6.00	540.
7	REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2		
8	Al B0 Gl A6 B0 Pl A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7	2.00	180.
9	Al BO Gl (Al BO Pl R16 ) Al BO Pl AO  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AN	(16) 1.00	2920.
10	ASIDE PF 45 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3 )A1 BO Pl A0  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIG  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6	IT	2290.
11	Al B0 Gl (Al B0 P1 R3) Al B0 Pl A0 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTA WITH 4 STEPS F 2		2640.
12	Al BO Gl A6 BO P3 AO MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSH	2.00 EAR	220.
	Al EO G1 A67 BO P1 A0	1.00	700.

TOTAL TMU 14210,

File Description ? SHEAR SHEETMETAL FOR RECT. TO RECT. TRANSFORMER

### Dutput to line-printer <Y or N> ? N

(39,	1)	
TTT	• W11	TRANSF.M41

SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH SHALL 8FT. SHEAR AT SHEETMETAL SHOP OFG: 4 06-JUL-83 PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

- \* 20 GAUGE GALV. SHEETMETAL \* 17'X15' TO 16'X18'X32' RECT TO RECT. --
- \* TRANSFORMER

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	Al BO Gl A6 E0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2  Al BO Gl Ml X6 TO A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8		
4	Al B0 G1 Al B0 P6 A0 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8	8.00	720.
	Al BO Gl Ml X6 IO AO	8.00	720.
5	REPLACE SHEETMETAL F-ROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
	Al B0 Gl Al6 B0 P3 A0	2.00	420.
6	MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE  Al B0 El A67 B3 P1 A0	1.00	730.

3050,

TOTAL TMU

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT CORNERS FOR RECT. TO RECT TRANSFORMER output to line-printer <Y or N> ? N

(3991)

FIT •W11 TRANSF.M42

CUT CORNERS FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH UNI-SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

\* 18 GAUGE GALV. SHEETMETAL

- \* 17'X15' TO 16'X18'X32'L RECT TO RECT.--
- \* --TRANSFORMER
- \* FLATTEN CORNERS AFTER CUTTING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE		
	WITH 4 STEPS F 2		
	'Al B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 Pl A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 4		
	Al B0 G1 M6 X173I0 A0	4.00	7240.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
	Al BO G1 (Al BO P3 C3 )A1 EO P1 AO (16)	1.00	1160.
5	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
	Al BO Gl (Al BO PO F6 )Al BO F1 AO (12)	1.00	880.
6	REPLACE SHEETMETAL FROM' WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
7	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT		
	Al B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

15310

File Description ? FROM LAP ENDS FOR RECT TO RECT. TRANSFORMER

## Quiput to line-printer <Y or N> ? N

1 DIAGE GUDDENNERAL EDOM GADELAR LADOUR DO LADOUR MITHULA
1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2
A1 B0 G1 A6 B0 P3 A0 2.00 220.
2 PUSH LAPOUT-SWITCH PROCESS F 2
A1 B0 G1 M1 X16 IO A0 2.00 380. 3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 2 STEPS.
F 2
A3 B0 G1 Ml X0 I3 A0 2.00 160.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2
Al BO G1 A6 BO P3 AO 2.00 220.
5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO PITTSBURGH
Al B0 G1 A6 B0 P1 A0 1.00 90.
TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,3080

File Description ? FORM PITTSBURGH LOCK FOR TRANSFORMER output to line-printer <Y or N> ? N

(39,1) FIT •Wll

TRANSF.M44

FORM PITTSBURGH LOCK FOR REACTANGULAR TO RECTANGULAR TRANSFORMER WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X15' TO 16'X18'X32'L RECT. TO --
- \* --RECT. TRANSFORMER
- \* FORM PITTSBURGH ON BOTTOM SECTION AND--
- \* --90 DEGREE EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTS WITH 4 STEPS F 2	BURGH
	Al B0 G1 A6 E0 P3 A	0 2.00 220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	
	Al BO G1 Ml X32 IO A	0 4.00 1400.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH STEPS F 4	2
	A3 B0 G1 M1 X0 13 A	0 4.00 320.
4	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2	
		A0 2.00 220.
5	MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO	2.00
	CORNICEBRAKE	
	Al B0 G1 A24 B0 P1 A	0 1.00 270.
	т	OTAL TMU 2430.
	±	O11111 1110 2100.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

18,810

# File Description ? BEND SHEETMETAL FOR TRANSFORMER Output to line-printer <Y or N> ? N

(39,1)

FIT •w11 TRANSF.M45

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH CORNICEBRAKE AT SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X15' TO 16'X18'X32' RECT. TO--
- \* RECT. TNSFORMER
- \* BEND UP SIDES OF TRANSFORMER 90 DEGREES FITTER BEGINS AT CORNICEBRAKE

1	POSITION	SHEE	TMETA	L	FROM	CAR'	T A	T CO	RNIC	EBRA	ΚE	TO	
	CORNICEB	RAKE	WITH	4	STEP	S							
						Al	В0	G1	Аб	в0	Ρ6	5 <i>I</i>	١

		Al	В0	G1	Α6	В0	Р6	A0	1.00	140.
2	OPERATE CORNICEBRAKE-LEVE	R P	ROCES	SS						
		Al	ΕO	E1	Мб	X42	ΙO	A0	1.00	500.
3	POSITION SHEETMETAL FROM	COF	RNICE	BRA	KE TO	O COE	RNIC	EBRAKE		
		Al	В0	G1	Al	в0	Р6	A0	1.00	90.
4	OPERATE CORNICEBRAKE-LEVE	R P	ROCES	SS						
		Al	в0	G1	Мб	X42	IO	A0	1.00	500.
5	REPLACE SHEETMETAL FROM (	CORN	NICEE	RAKI	E TO	CART	TA :			
	CORNICEBRAKE WITH 4 STEP	S								
		Al	в0	E1	Аб	в0	P3	A0	1.00	110.

'مد	5	MOVE CART	WITH	SHEETMETAL2	FROM	CORN	<b>VICEB</b>	RAKE	TO			
		PANBRAKE										
				A.	1 B0	E1	A10	в0	Р1	A0	1.00	130.

TOTAL TMU 1470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

20,280

#### File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)

FIT • W l l TRANSF.M46

BEND SHEETMETAL FOR TRANSFORMER WITH PAN-BRAKE AT SHEETMETAL SHOP PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X15' TO 16'X18'X32' LG RECT.--
- \* --TO RECT. TRANSFORMER

FITTER BEGINS AT PANBRAKE

1	POSITION	SHEETMETAL	FROM	CART	AT	PANBRAKE	TO	PANBRAKE
	WITH 4 S	STEPS F 2						

	WIII I DIED F Z		
	Al B0 G1 A6 B0 P6 A0	200	280.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE WITH 4		
	WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE F 2		
	Al BO G1 Al BO P3 F16 Al BO P1 AO	2.00	480.
3	OPERATE PANBRAKE-LEVER PROCESS F 2		
	Al B0 G1 M6 X96 IO A0	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6		
	Al BO G1 Al BO P6 AO	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6		
	Al B0 G1 M6 X96 IO A0	6.00	6240.
6	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE		
	Al B0 G1 A54 B3 F1 A0	1.00	600.

TOTAL TMU 10440,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30720

#### File Description ? ASSEMBLE TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)	. )
--------	-----

FIT .W11 TRANSF.M47

ASSEMBLE RECTANGULAR TO RECTANGULAR TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X15' TO 16'X18'X32' RECT. TO --
- \* -- RECT, TRANSFORMER
- \* FASTEN TOP TO BOTTOM WITH PITTSBURGH
- \* LOCK

FITTER BEGINS AT WORKTABLE

1	PLACE	SHEETME	TAL	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	4 STEPS	F 2						

USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )

2 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )  Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) 1.00 320  3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOTM] AT WORKTABLE WITH 2 STEPS  Al B0 E1 A3 B0 P6 A0 1.00 1	Ο.
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )  Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) 1.00 320 3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOTM] AT WORKTABLE WITH 2 STEPS	
Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) 1.00 320 3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOTM] AT WORKTABLE WITH 2 STEPS	
Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) 1.00 320 3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOTM] AT WORKTABLE WITH 2 STEPS	
3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTOTM] AT WORKTABLE WITH 2 STEPS	^
[BOTOTM] AT WORKTABLE WITH 2 STEPS	J.
Al BO El A3 BO P6 AO 1 100 1	
112 20 21 115 20 10 110 1:00 1	1
4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	
WORKTABLE F 12	
Al BO G1 Al BO P6 AO 12.00 1080	n
5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES	, .
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	
· · · · · · · · · · · · · · · · · · ·	_
Al B0 G1 (Al B0 P0 F6 )A1 B0 P1 A0 (12) 1.00 880	J.
6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES	
USING HAMMER-AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	
Al BO E1 (Al EO PO FlO )A1 EO P1 AO (12) 1.00 1360	) .
7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	-

Al B0 E1 (A1 B0 PO F32 )A1 B0 P1 A0 (20) 1.00 6640. 8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00

TOTAL TMU 10710.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

41430

100.

0.

:	j	೨ <sub>7,</sub>	167							
`		Title and Method Description Sheet								
(n) c	\$3CO)	File	Description			<del></del>	5-13-8 YOUNG			
	MARK OUT RECTANGLE to RECTANGL TRANSFORMER									
		YPOINTS	<del></del>							
• ACT	IVITY MA	PK		N.A.S.S.C.O. SH	EEFMEFIL SA	IAPE	#/			
	SCI: 5/4E		46	* 18 GAUGE GALV. 17		Z. REG	t. to lect.	teruse		
	N.   ON						<del></del>			
28 <b>C</b>	DUCT/EQUIPM	AENT:	•							
TOC	L: AWL		·	DATA UNIT	TEMPORARY FILE NAME/N		DELE YES	NO		
• 🔲 ז	TO MAT				<u>'                                      </u>	44		$\neg \neg$		
	VCAPACITY:_			WORK AREA LAYOUT	TRANSF. M.O.					
	RK AREA ORIG		5HOP	COMBINED SUB-OP.	PANSF. 19.0.	40				
	rk apea num T: <i>Per Recf-</i>		2>150 4 1-5/4 OFG: 4	TITLE SHEET	· 					
	RATOR:	O EECT.	• BEGINS:	DATE FILED	LOC. NO.	DATA	COCRDIN	ATOR		
J										
NO.	KEYWORD/	METHOD S	DESCRIPTION			< SIMC	) (PF)	F		
1	Posific	N TEN	APLATE FROM WORKI	IBLE TO SHEETMETA	LAF					
	WOCKFIRE		•	_						
æ	Posifie	N WE/O	HIS FROM WORKIAGLE	to TEMPLATE AF	WORKTABLE					
	WIFI :									
· · · ·			ON SHEEFMETAL AF W	NORKHABLE 5 DIG	Its USING					
			FABLE AND ASIDE P.F.			<u> </u>				
4	Positio	N CPU	NCH FROM WOCKFASL	E to SHEETMET	AL AF					
	WORKFAB	LE-F-	6			_				
5			ICH FROM WORK TABLE					<del></del>		
			FRIKE USING HAMMER				····			
6			4/5 FROM TEMPLATE.	to WORKTABLE At	WOLKTABLE					
	WIFH 3.									
7		TEMPL.	AFE FROM SHEETMETA	L to workfABLE	ATWOCKHABLE					
	جے۔ عر		.,		. /					
8	1		S ON SHEETMETAL AT		IFS USING					
			KKFABLE AND ASIDE F					<del></del>		
9	i		HON INFORMATION ONS					<del></del>		
ļ			ISCHPEN AT WORKTABLE							
10			CHOW ON SHEETMENT A		It USING			<del></del>		
<u> </u>			NORTABLE AND ASIDE					<del></del>		
li 	REPLA	CE SAL	Etnetal. FROM WORK	TABLE TO CART A	+ WORKHABLE					
<u> </u>			NO ASIOF F-Z							
12	MOVE	exet p	EOM WORKTABLE to	SMALL SHEAR						
	-									
		-				•				

# SHEET METAL SHAPE

17x15" to 16" X18" X 32" LG. TEANSFORMER

FAB	. 41430	25 <u>MIN</u>
MARK OUT	14210	9 MIN
TOTAL	55640	33 MIN

#

SHEET METAL SHAPE

18 × 16 to 18 × 20 × 30"LG TRANSFORMER

FAB	.20,600	8 MIN.	
MARK out	11,840	7 MIN	
WELD	27850	17 MIN.	
TofAL TMUS.	60,290	32 MIN_	

# File Description ? MARK OUT TRANSFORMER

Output to line-printer <Y or N> ? N

( 39, 1)  FIT •Wll TRANSF.M50  MARK OUT RECTANGULAR TO RECTANGULAR TRANSFORMER WITH AWL  SHEETMETAL SHOP  PER TRANSFORMER OFG: 4 26-JU:  NASSCO SHEETMETAL SHAPE 1  * 11 GAUGE GALV. SHEETMETAL  * 18'X16' TO 18'X30'L RECT. TO  *RECT. TRANSFORMER  * MARK OUT USING TEMPLATE  FITTER BEGINS AT WORKTABLE		
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 Al B0 G1 A3 B0 P6 A0	2.00	220 •
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4		
Al B0 G1 A6 B0 P6 A0  3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	4.00	560.
Al B0 G1 (Al B0 P1 F1 )A1 B0 P1 A0 (16) 4 POSITION CPUNCH FROM WORKTABLE TO) TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	1.00	2920.
Al B0 G1 A6 B0 P6 40 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	6.00	840.
HAMMER AT WORKTABLE AND ASIDE PF 6 (4 5 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (6) 6 REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	1.00	580.
WITH 3 STEPS F 6  Al B0 G1 A6 B0 P1 A0 7 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO	6.00	540.
WORKTABLE WITH 2 STEPS F 2  Al B0 G1 A3 B0 P1 A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	120.
USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  Al BO G1 (Al BO P1 R16 )A1 BO P1 AO (16)  9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
ASIDE PF 45 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (45)  10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PLF 52 (4 5 6 7)	1.00	2290.
Al B0 G1 Al B0 P1 R3 A1 B0 P1 A0 11 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	90.
WITH 4 STEPS AND ASIDE F 2  Al B0 G1 A6 B0 P3 A0  12 MOUE CART WITH 42 STEPS FROM WORKTABLE TO 14FT.SHEAR	2.00	220 •
WITH 43 STEPS A81 B0 G1 A81 B0 P1 A0	1.00	1640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? SHEAR SHEETMETAL FOR TRANSFORMER Output to line-Printer ${\tt <Y}$ or N> ? N

FIT	.1) . TRANSF.M51 SHEAR SHEETMETAL FOR RECTANGULAR TO RECTANGULAR C. SHEAR AT SHEETMETAL SHOP TRANSFORMER OFG:	TRANSFORMER	
	NASSCO SHEETMETAL SHAPE 1  * 11 GAUGE GALV. SHEETMETAL  * 18'X16' TO 18'X20'X30°L RECTANGULAR  * TO RECTANGULAR TRANSFORMER  FITTER BEGINS AT 14FT.SHEAR		
1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P6 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2	A0 2	.00 <b>280</b> .
	Al BO G1 Ml X3 IO	A0 2	.00 120.
3	POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHE 2 STEPS F 7		
4	Al BO G1 A3 BO P6	A0 7	.00 770.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 7  Al B0 G1 Ml X3 IO	A0 7	.00 420.
5	REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT	,	.00
	14FT.SHEAR WITH 10 STEPS F 2	7.0	0.0
6	Al B0 G1 Al6 B0 P3 MOUE CART WITH 42 STEPS FROM 14FT.SHEAR TO WORKT		.00 420.
Ū	WITH 43 STEPS		
	A81 B0 G1 A81 B3 P1	A0 1	.00 1670.
		TOTAL TMU	3680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N

(39,1)

FIT •Wll TRANSF.M52

CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH SABER-SAW AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE 1

PER TRANSFORMER

\* 11 GAUGE GALV. SHEETMETAL \* 18'X16' TO 18'X20'X30'L RECTANGULAR--

\* -- TO RECTANGULAR TRANSFORMER

FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
2	MOUE SABER-SAW2 FROM; TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970,
3	FASTEN NUT [SAW-BLADE] TO SHEETMETAL AT WORKTABLE 4 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE	1.00	1970,
	PF2(4567) Al B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (2)	1.00	320.
4	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 13		
	Al BO G1 Al BO P6 AO	13.00	1170.
5	01	1 = 00	11050
_	Al BO G1 M6 X67 IO AO	15.00	11250.
О	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 PO F10 )A1 B0 P1 A0 (12)	1.00	1360.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
8	MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE	7 00	0.00
	Al B0 G1 A96 B0 P1 A0	1.00	990.

OFG: 4 26-JUL-83

TOTAL TMU 17560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

### File Description ? BEND SHEETMETAL FOR TRANSFORMER

Output to line-printer <Y or N> ? N (29)

1)

TRANSF.M53 FITWll

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANSFORMER WITH 14FTHYDROPRESSBRAKE AT SHEETMETAL SHOP

OFG: 4 18-MAY-83 PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X16' TO 18'X20'X30'L RECTANGULAR--
- \* -- TO RECTANGULAR TRANSFORMER
- \* BEND UP SIDES OF TRANSFORMER 90 DEGREES
- \* KINK LAP ENDS TO SUIT
- \* COMPLETE IN WELD BOOTH AREA

\* SEE MWELD, TRANSF.M54 FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	DOCTOR CHEROMORAL EDOM CADO AM 1/POUNDODDECCODAVE		
Т	POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE		
	TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
	Al BO G1 A6 HO P6 A0	2.00	280.
2	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	Al BO G1 Ml X24 IO AO	2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO	_,,,	
	14FTHYDROPRESSBRAKE WITH 2. STEP F 4		
	Al 0 G1 A3 B0 P6 A0	4.00	440.
1	PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2	4.00	110.
4			
	Al BO G1. Ml X24 IO AO	2.00	540.
5	REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT		
	14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
6	MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE	2.00	220.
O		1 00	1000
	Al B0 G1 A96 B3 P1 A0	1.00	1020.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

13,920

3040.

TOTAL TMU

#### File Description ? WELD TRANSFORMER

### OutPut to line-Printer <Y or N> ?

	1	$\sim$		<b>~</b> 、
- (	٠,	9		3)
١ ١		_	, .	,

WELD •WO1 TRANSF.M54

WELD TRANSFORMER WITH ARC (STICK) WELDING AT SHEETMETAL SHOP WELDING BOOTH
PER TRANSFORMER OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18X16 TO 18X30 LG RECTANGULAR TO --
- \* --RECTANGULAR TRANSFORMER
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
3	Al B0 G1 A131B3 Pi A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELD TABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
4	Al B0 G1 A6 B0 P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
5	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 IO A32  WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370.
J	WELDMACHINES TO ON AT WELDMACHINES  Al B0 G1 M3 X0 IO Al	1000	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2	1000	00.
7	A3 B3 G1 A1 B0 P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2	2.00	280.
8	Al BO G1 Ml X10 IO AO WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1	2.00	260.
Ü	WRIST-TURN USING HAND F 8 Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0	8.00	560.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8  Al B0 G1 Ml X0 IO Al	8.00	320.
10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8	0.00	320.
11	Al BO G1 Al BO P6 AO OPERATE STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 10	8.00	720.
	Al B0 G1 M6 X173I0 A0	10.00	18100.
12	PUSH WELDHOOD FROM Down aT WELDOR to up at weldor f 8  Al BO G1 Ml X0 IO Al	8.00	320.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 5		
	Al B0 G1 Al B0 PO L16 Al B0 P1 A 0 14WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF	5.00	1050.
	20 (4567) Al B0 G14 (Al B0 P1 C10 )A1 B0 P1 A0 (20)	1.00	2440.

	15	REPLACI WELDTA				FROM	WEL	DTAB:	LE TO	) CA	RT <b>A</b> T			
	16	FITTER	MOTTE	CADT	ED OM				B0		A0	2.	0 0	220.
(A)	10	FIIIER	MOVE	CARI	FROM	 			1B0		A0	1.	00	1340.
( j.j.											TOTAL	TMU		27850.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# 7-1/2 × 6" TO 10" × 4-1/2 X 14" G TRANSFORMER

FAB	24960	15 MIN.	<del> </del>
MARK OUT	10/40	6 MIN.	
TOTAL FMU.	34830	21 MIN	

	•		·	* **	4 (	· • · · · · · · · · · · · · · · · · · ·	_				
·	*								r A special		<b>;</b>
S.Ç	14.2	orina) Selektri	NAS!	DEPENDANT HOSE	e i i i i i i i i i i i i i i i i i i i	ំ ភាពស៊េម ស៊ុមលើក ស	等。 数据数据数据	· 大连军 30	PREPARED	(00/13/00/13 13 04 点。 所有 经设计 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	in the second
c Ņr	MRECTION		in her property of the second		ENG STRUC		School -	ACTUAL FLA	er Maki	TATE BOATING THE OF HE	TÈ CH
Ģ	ya racas	* • • •	THE REST VERY OF	ici enu dis pu a	A HARC TH	NRM S	19749788 198749788	nasodsna h	13/00/	115-801-7074-12	00/03
4	Va- 74094	414	NEW PERIOR HELL	BART SHO OK LU	NREC	NREC	14/23/65	00/00/00 1	15/16/	11/08/91/20/4-12/	rī pzēli
· Ģ	A& & 40 ft	414	Sound to (A1-14)	FOR HOAT DK	in March	NHEE	MANUEL ST	HARE	90/00/	11754944 437 12.	() () () () () () () () () () () () () (
ç	V2- 20016		ARPHAY ALTHURA PROPERTY HOUSE AREFAY BE BROK	MALLET PLATE	NREC	NREC	NHAC	y hund A	00/00/		/17/03 /17/03
, j	. <b>A</b> S- <b>b</b> so d (		166-14) 66 BNG\$		Muke 🏰	Mark Sept.	in ic	Manie 2011	1 2 2 2 2 3 2 3 3 3	00 110-001-001-12	/E3/64
i j J	<b>V</b> S 98908		TONE OR THE PROPERTY OF THE PR	1 3 th	NHEC	Nate	NRCC	HAUC.	92/20/		\\$3\@\$
, ,			. SUNA DS (AF-5#)	3,	unud"	Ass naeg alla v	11/03/02	90/00/00	18/13/		/\$3/82 
<b>H</b>	ÁS-ÁSÓÍÓ	•	tandal vent out era 1944 (vinsa) Edne 04 (vinsa) Complete Install		NO EC	NALC	MIEC	NHHC I	1 60\00\		
<b>G</b>	V2 9451							Mago And C			** **:
9	ÀR-ÁÀŽÍC	414	schild da (Afteat)		Wute	NHER	S. Mirec		1 29/83/		/43/03
•	y2-1400:	414	PURCHASED 1 [EM   1   1   1   1   1   1   1   1   1	ITERMINALS) FOR	HREC	NINEC	NREC	HERC I	1 89/33/		/03/83
4	As-hsaol	410	SOUR OFCK THEST	and the second of the second	00/00/00	00700700	11/22/93	00/00/00	90/00/		/10/03
, <b>Ģ</b>	V2-52000	410	CABLE DECK FR. 2:	44 HM 44	HREC	, Higher	12/01/02	oovodvob i	01/54/	12/23/64 91	184/83
						. NO. 212. 12. NO					

()

(\*\*)

### File Description ? MARK OUT TRANSFORMER

Output to line-Printer <Y or N> ? N

Outpu	t to line-Printer <y n="" or=""> ? N</y>		
(39, FIT PER	*WO4 TRANSF MARK OUT SHEETMETAL FOR TRANSFORMER WITH AWL AT SHEETMET TRANSFORMER OFG: 4 OS-MA  U.s.s. CAPE COD  *WORK ORDER 3070-339  *SKETCH 737  *20 GAUGE GALV. SHEETMETAL  *DIMENSIONS:7 1/2'X6'TO 10'X 4 1/2'  *MARK OUT TRANSFORMER USING TEMPLATE  *CENTER PUNCH BEND LINES  *1 TEMPLATE 1 PIECE  *1 PIECE =BOTTOM AND SIDES OF TRANSFORMER FITTER BEGINS AT WORKTABLE		
1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	4 00	110
2	Al B0 G1 A6 80 P3 A0 PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AND TEMPLATE AT WORKTABLE WITH 3 STEPS	1.00	110.
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )	1.00	110.
4	Al B0 G1 (A1 B0 P1 'R16 )A1 B0 P1 A0 (B) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE AND ASIDE PF 4 ( 4. 5 6 )	1.00	14B0.
5	A1 B0 G1 (A1 B0 P6 )A0 (4) FASTEN CPUNCH TO WORKTABLE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 ( 4 56 7 )	1.00	300.
6	Al BO G1 (Al BO PO F3 )A1 BO P1 AO (4) REPLACE WEIGHT FROM TEMPLATE TO WORKTABLE AT WORKTABLE WITH 3 STEPS	1.00	200.
7	Al B0 G1 A6 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE AT	1.00	110.
В	WORKTABLE WITH 3 STEPS  Al B0 G1 A6 B0 P3 A0  PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	1.00	110.
	WORKTABLE WITH 4 STEPS  Al B0 G1 A.5 B0 P3 A0  MARK CORNERS FROM CORNER TEMPLATE ON SHEETMETAL AT	1.00	110.
9	WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 16 ( 4 5 6 7)		
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )	1.00	840.
11	Al BO G1 (Al BO P1 R3 )Al BO P1 AO (52)  MARK CONSTRUCTION LINES ON SHEETMETAL AT WORKTABLE 1	1.00	26.40.

DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 47 ( 4

USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7

Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (47) 1.00 2390. MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT

5 6 7 )

A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740.

TOTAL TMU 10140.

(Pe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? MARK OUT TRANSFORMER (TOP)

WITH 4 STEPS

12 MOVE CART FROM WORKTABLE TO SMALLSHEAR

Fil	e Description ? MARK OUT TRANSFORMER (TOP)		
Qutpu	t to line-Printer <y n="" or=""> ? N</y>		
(39 FIT	$^{,3)}$ •W04.	TMETAL	
SHOI PER	TRANSFORMER (TOP)  U.S.S. CAPE COD  * WORK ORDER 3070-339  * SKETCH 737  * 20 GAUGE GALV. SHEETMETAL  * DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'  * MARK OUT TRANSFORMER TOP USING TEMPLATE  * 1 TEMPLATE 1 PIECE  FITTER BEGINS AT WORKTABLE	.R-83	
1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	Al HO G1 A6 B0 P3 A 0 PLACE 1 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2	1.00	110.
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7)	2.00	220.
4	Al B0 Gl B0 (Al B0 F1 R16 )Al B0 F1 A0 (4) REPLACE WEIGHT FROM SHEETMETAL TO WORKTABLE AT WORKTABLE WITH 3 STEPS	1.00	760.
5	Al B0 G1 A6 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS	1.00	110.
4	Al BO Gl A6 BO F3 AO PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )	1.00	110.
7	Al BO G1 (Al BO P3 )AO (4)  MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 1  DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7)	1.00	130.
3	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (B) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )	1.00	440.
9	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 20 ( 4 5 6 7 )	1.00	1290.
10	ASIDE PF 20 ( 4 5 6 7 ) Al B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (20) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 67 )	1.00	1040.
11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	1740.

Al BO G1 AS BO P3 AO 1.00 110.

A l B0 G1 A67 B0 F1 A0

1.00

700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

please input file <TRANSF> ?

### File Description ? SHEAR TRANSFORMER OUT LINES

Output to line-printer <Y or N> ? N

PROCESS F 5

WITH 4 STEPS

output to line printer (1 or iv . ii
(39, 3)
FIT .W04 TRANSF.M03
SHEAR SHEETMETAL FOR TRANSFORMER WITH SHEAR (SMALL SHEAR) AT
SHEETMETAL SHOP
PER TRANSFORMER OFG: 4 03-MAR-83
U.S.S. CAPE COD
* WORK ORDER 3070-339
* SKETCH 737
* 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'
* ROUGH CUT TRANSFORMER ENDS ON SHEAR
FITTER BEGINS AT SMALLSHEAR
1 POSITION 4X3 SHEETMETAL 2 FROM CART AT SMALLSHEAR TO
SMALLSHEAR WITH 4 STEPS
A1 B0 G1 A6 B0 P6 A0 1.00
2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL2
PROCESS
A1 B0 G1 M1 X6 I0 A0 1.00
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH
2 STEPS
Al BO G1 A3 BO P6 A0 1.00
4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL

5 PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR

					A1	в0	G1	Аб	в0	Р3	A0	1.00	110.
6	MOVE	CART	FROM	SMALLSHEAD	R TO	WOF	RKTAE	3LE					
					A1	B0	G1	A67	В3	P1	A0	1.00	730.
											TOTAL	TMU	1630.

A1 B0 G1 M1 X6 I0 A0

140.

90.

110.

450.

5.00

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? SHEAR TRANSFORMER ENDS

Output to line-Printer <Y or N> ? N

FIT SHE	TRANSF  SHEAR SHEETMETAL FOR TRANSFORMER ENDS WITH UNI-SHEAR AT EETMETAL SHOP  R TRANSFORMER  U.S.S CAPE COD  * WORK ORDER 3070-339  * SKETCH 737  * 20 GAUGE GALV. SHEETMETAL  * DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'X14'L  FITTER BEGINS AT WORKTABLE	AR-83	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
2	A1 B0 G1 A6 B0 F3 A0 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE	1.00	110.
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	POSITION UNI-SHEAR2 FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
1	A1 B0 G1 A1 B0 P6 A0 OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 2	1.00	90.
7	A1 B0 G1 M6 X173 IO A0	2.00	3620.
5	CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )		
_	A1 B0 G1 (A1 B0 P3 C1) A1 B0 P1 A0 (24)	1.00	1240.
6	FASTEN ( FLATEN ) SHEETMETAL CORNERS ON SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 24 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P0 F6) Al B0 P1 A0 (24)	1.00	1720.
7	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS		
0	A1 B0 G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO LAPOUT MACHINE	1.00	110.
0	A1 B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL TM	IJ	9430.

Type D,EM,CT,EW,EX,L,LD,LS,M,M,W <or H for help> ?

11,060

File Description ? FORM TRANSFORMER LAP Output to line-printer  $\ensuremath{^{<\! Y}}$  or  $\ensuremath{^{N\! >}}$  ?  $\ensuremath{^{N}}$ 

(39, 3)

FIT .W04 TRANSF -

FORM SHEETMETAL FOR TRANSFORMER LAP WITH LAPOUT AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 09-MAR-83

U.S.S. CAFE COD

\* WORK ORDER 3070-339

\* SKETCH 737

\* 20 GAUGE GALV. SHEETMETAL

\* DIMENSIONS: 7 1/2'X6' TO 10'X4 1/2'X14'L \* LAP-OUT 1 END (2SIDES, BOTTOM, TOP)

FITTER BEGINS AT LAPOUT

1		SHEETMETAL	FROM	CART	AT	LAPOUT	от о	LAP	OUT	WITH	4	
	STEPS											
				A1	BO	) G1	Аб	в0	Р3	A0		1.00
	DIICH I	DOTTE SWITCH	I DT	TIDOG.T	י סד	CESS	FЗ					

A1 B0 G1 M1 X16 I0 A0 3.00 970. 3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS

Аб ВO Р3 Α0 1.00 110. A1 B0 G1 4 MOVE CART FROM LAPOUT TO PITTSBURGH 90. A1 B0 G1 A6 B0 P1 Α0 1.00

> TOTAL TMU 880.

110.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM PITTSBURGH LOCK ON TRANSFORMER Output to line-printer <Y or N> ? N

(39, 3) .W04 FIT TRANSF FORM SHEETMETAL FOR TRANSFORMER LOCK WITH PITTSBURGH AT SHEETMETAL SHOP OFG: 4 09-MAR-83 PER TRANSFORMER U.S.S. CAPE COD \* WORK ORDER 3070-339

\* SKETCH 737

\* 20 GAUGE GALV. SHEETMETAL

\* DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'X14'L

\* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH

\* FORM EDGE ON OTHER SIDE OF MACH

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2		
	A1 B0 G1 M1 X32 I0 A0	2,00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2		
	A1 B0 G1 M1 X0 I3 A0	2.00	120.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2		
	STEPS F 2		
	A3 B0 G1 M1 X0 I3 A0	2.00	160.
5	PLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT PITTSBURGH		
	WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM PITTSBURGH TO CORNICEBRAKE		
	A1 B0 G1 A24 B0 P1 A0	1.00	270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

TOTAL TMU

1470.

# File Description ? BEND TRANSFORMER

#### butput to line-printer <Y or N> ? N

(39, 3)

FIT .W04 TRANSF

BEND SHEETMETAL FOR TRANSFORMER WITH CORNICE BRAKE AND FAN BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 09-MAR-83

U.S.S. CAPE COD

- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:7 1/2'X6' TO 10'X4 1/2'X14'L
- \* BEND TRANSFORMER SIDES UP 90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 I0 A0	2.00	1000.
3	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT CORNICEBRAKE WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
4	MOVE CART FROM CORNICEBRAKE TO PANBRAKE		
	A1 B0 G1 A10 B0 P1 A 0	1.00	130.
5	POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
5	FASTEN ( JAWS ) NUT TO SHEETMETAL AT PANBRAKE 5		
	WRIST-STROKES USING HAND		
_	Al BO G1 Al BO F1 F16 AO BO PO AO	1.00	200.
1	OPERATE PANBRAKE-LEVER PROCESS	1 00	1040
0	A1 B0 G1 M6 X96 I0 A0	1.00	1040.
8	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
9	1100L OHIL THOIL THE TO WOLLTIDEL		
	A1 B0 G1 A54 B3 F1 A0	1.00	600.
	TOTAL 1	'MU	3470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16380

# Flease input file <TRANSF.MO8> ?

# File Description ? ASSEMBLE TRANSFORMER

## output to line-printer <Y or N> ? N

	.W04 TRANSF ASSEMBLE SHEETMETAL PIECES FOR TRANSFORMER WITH HAMMER ASTMETAL SHOP		
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
2	A1 B0 G1 A6 B0 P3 A0 POSITION HAMMER TO SHEETMETAL AT WORKTABLE F 2	1.00	110.
	A1 B0 G1 A1 B0 F6 A0	2.00	180.
3	FASTEN CORNERS ON SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )		
4	A1 B0 G1 (A1 B0 P0 F6) A1 B0 F1 A0 (8) POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	400.
5	A1 B0 G1 A1 B0 P6 A0 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	1.00	90.
	WORKTABLE AND ASIDE PF 12 ( 4 5 6 ) A1 B0 G1 (A1 B0 P3) A 0 (12)	1.00	500.
6	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
7	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	880.
•	USING HAMMER AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 )  Al BO G1 (Al BO PO F32) Al BO Pl AO (9)	1 00	2010
8	POSITION CAULKINGGUN TO SHEETMETAL AT WORKTABLE PF 12 (456)	1.00	3010.
9	A1 B0 G1 (A1 B0 F6) A0 (12) GRIP SEALANT TO SHEETMETAL DIFFICULT AT WORKTABLE USING	1.00	860.
	CAULKINGGUN AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P10 C1) A1 B0 F1 A0 (12)	1.00	1480.
10	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100,
			E010

7810.

TOTAL TMU

SHEET METAL SHAPE

Ħ

# 17"x 18" TO 20"x 14" x 30" LG TRANS FORMER

FAB 91,420 24 .

MARK OUT 15850 10

TOTAL TMU. 57,270 34

8 54/5

File Description ? MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER
Output to line-Printer <Y or n> ? N

(39, 1) FIT .W11

TRANSF. M80

MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFS SHOP

PER TRANSFORMER OFG: 4 20-MAY-83

NASSCO SHEETMETAL SHAPE 1 \* 18 GAUGE GALV. SHEETMETAL

- \* 17'X18'X20'X14'X30' RECTANGULAR TO--
- \* -- RECTANGULAR TRANSFORMER WITH 5' OFFSET
- \* MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
2		2.00	220.
۷	WORKTABLE WITH 3 STEPS F 6	6.00	840.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		010.
4	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 1 STEP F 16	1.00	2920.
5	A1 B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	16.00	1760.
6	HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F3) A1 B0 P1 A0 (16) REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	1.00	680.
Ü	WITH 3 STEPS F 6  Al B0 Gl A6 B0 P3 A0	6.00	660.
7	MARK CUT LINES FROM TEMPLATE AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
8	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
9	ASIDE PF 45 ( 4 5 6 7 )  Al BO G1 (Al BO Pl R3) Al BO Pl AO (45)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	2290.
10	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	2640.
1 1	WITH 4 STEPS F 2  Al BO Gl A6 B0 P3 A0	1.00	220.
ΤŢ	MOUE CART FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 15850.

### File Description ? SHEAR SHEETMETAL FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF.M81

SHEAR SHEETMETAL FOR

RECTANGULAR TO- RECTANGULAR OFFSET TRANSFORMER WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X18' TO 20'X14'X30' RECTANGULAR TO--
- \* RECTANGULAR TRANSFORMER WITH 5' OFFSET
- \* COMPLETE SHEARING AT WORKTABLE --
- \* --WITH UNI-SHEAR

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO		
	SHALLSHEAR WITH 4 STEPS F 2  A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	2.00	200.
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8	0 00	700
1	A1 B0 G1 A1 B0 P6 A0 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8	8.00	720.
4	A1 B0 G1 M1 X6 I0 A0	8.00	720.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 10 STEPS F 2		
c	A1 B0 G1 A16 B0 P3 A0	2.00	420.
О	MOVE CART FROM SMALLSHEAR TO WORKTABLE  A1 B0 G1 A67 B3 P1 A0	1.00	730 •
	212 20 01 110, 23 11 110		

TOTAL TMU

3050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? CUT SHEETMETAL FOR OFFSET TRANSPORT output to line-printer <Y or N> ? N

(39, 1)  FIT .W11 TRANSF.M82  CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFOWER OFG: 4 O6-JUL-83  NASSCO SHEETMETAL SHAPE 1  * 18 GAUGE GALV. SHEETMETAL  * 17'X18' TO 20'X14'X30'L RECTANGULAR  * TO RECTANGULAR TRANSFORMER. WITH 5' OFFSET  FITTER BEGINS AT WORKTABLE	
1 DIAGE GUEERMERAL EDOM GADE AE MODVEADIE EO MODVEADIE	
1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P3 A0 2.0	220.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0 1.0	00 1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4	
A1 B0 G1 M6 X17310 A0 4.0 4 CUT CORNERS ONL SHEETMETAL AT WORKTABLE 2 CUTS USING	00 7240.
SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16) 1. 5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES	00 1160.
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	
- ( ( /	00 880.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P3 A0 2.0	220.
7 MOUE CART FROM WORKTABLE TO LAPOUT  Al B0 G1 A54 B0 P1 A0 1.0	00 570.
711 DO GI 1151 DO 11 AO 1.0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
TOTAL TMU	12260.
	12200.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

15,310

#### File Description ? FORM LAP ENDS FOR OFFSET TRANSFORMER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF.M83

FORM LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X18' TO 20'X14'X30' RECTANGULAR TO--
- \* RECTANGULAR TRANSFORMER WITH 5' OFFSET

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2		
	A1 B0 G1 M1 X16 I0 A0	2.00	380.
3	PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS F 2		
	A3 B0 G1 M1 X0 I3 A0	2.00	160.
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOUE CART FROM LAPOUT TO PITTSBURGH		
	A1 B0 G1 A6 B0 F1 A0	1.00	90.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16,380

1070.

TOTAL TMU

### File Description ? FORM PITTSBURGH LOCK FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FORM PITTSBURGH LOCK FOR

RECTANGULAR TO RECTANGULAR OFFSE

AT SHEETMETAL SHOP SHOP

PER TRANSFORMER

NASSCO SHEETMETAL SHAPE 1
\* 18 GAUGE GALV. SHEETMETAL

\* 17'X18' TO 20'X14'30'L RECTANGULAR TO -- \* -- RECTANGULAR TRANSFORMER WITH 5' OFFSET

FITTER BEGINS AT PITTSBURGH

1	PLACE	SHEETMETAL	FROM	CART	AT	PITTSBURGH	TO	PITTSBURGH
	WITH	4 STEPS F 2						

	WITH 4 STEPS F Z								
	I	A1 E	30 G1	Аб	в0	P3	A0	2.00	220.
2	PUSH FITTSBURGH-BUTTON PRO	CESS	S F 4						
	I	41 E	30 G1	M1	X32	ΙO	A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL	THE	ROUGH	PITTS	BURGI	H WI	TH 2		
	STEPS F 4		_						
	I	A3 E	30 G1	M1	Х0	Ι3	Α0	4.00	320.
4	REPLACE SHEETMETAL FROM P	ITTS	BURGH	TO C	ART	ΑT			
	PITTSBURGH WITH 4 STEPS F	· 2							
	Ā	A1 E	30 G1	. A6	В0	P3	A0	2.00	220.
5	MOVE CART FROM PITTSBURGH	TO (	CORNIC	EBRAK	Έ				
			30 G1		вО	F1	A 0	1.00	270.

TOTAL TMU 2430.

OFG: 4 20-MAY-83

Type D.EM.CT.EW.EX.L.LD.LS.M.T.W (or H for help) ?

18,810

File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER

Qutput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF.M85

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER

WITH CORNICE-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 06-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X18' TO 20'X14'X30' RECTANGULAR TO--
- \* -- RECTANGULAR TRANSFORMER WITH 5' OFFSET
- \* BEND UP SIDES OF TRANSFORMER 90 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO		
	CORNICEBRAKE WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE CORNICEBRAKE-LEVER PROCESS		
	A1 B0 G1 M6 X42 I0 A0	1.00	500.
3	POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE		
Ū	A1 B0 G1 A1 B0 P6 A0	1.00	90.
4	OPERATE CORNICEBRAKE-LEVER PROCESS	_,,,	
_	A1 B0 G1 M6 X42 I0 A0	1.00	500.
5	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT	1.00	500.
5	CORNICEBRAKE WITH 4 STEPS		
		1 00	110
_	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM CORNICEBRAKE TO PANBRAKE		
	A1 B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU 1470.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,280

#### File Description ? BEND LAP ENDS FOR OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 TRANSF.M86

BEND LAP ENDS FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH PAN-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 1

- \* 18 GAUGE GLAV. SHEETMETAL
- \* 17'X18' TO 20'X14'X30' RECTANGULAR TO --
- \* -- RECTANGULAR TRANSFORMER WITH 5' OFFSET
- \* KINK UP LAP ENDS TO OFFSET ANGLE

FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 4		
	WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE PF 2		
	( 4 5 6 7)		
	A1 B0 G1 (A1 B0 P3 F16) A1 B0 P1 A0 (2)	1.00	440.
3	OPERATE PANBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X96 I0 A0	2.00	2080.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6		
_	Al BO G1 A1 BO P6 A0	6.00	540.
5	OPERATE PANBRAKE-LEVER PROCESS F 6		
	A1 B0 G1 M6 X96 I0 A0	6.00	6240.
6	REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
7	MOUE CART FROM PANBRAKE TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30,680

10400.

TOTAL TMU

#### File Description ? ASSEMBLE OFFSET TRANSFORMER

Output to line-printer <Y or N> ? N

(39, 1 FIT.W11

TRANSF.M87

ASSEMBLE SHEETMETAL FOR

RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH HAMMER AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 06-JUL-83

- NASSCO SHEETMETAL SHAPE 1
- \* 19 GAUGE GALV. SHEETMETAL
- \* 17'X18' TO 20'X14'X30'L RECTANGULAR TO--
- \* -- RECTANGULAR TRANSFORMER WITH 5' OFFSET
- \* FASTEN TRANSFORMER TOP AND BOTTOM--
- \* -- WITH PITTSBURGH

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL CORNERS TO SHEETMETAL AT		
	WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND		
	ASIDE PF 4 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (4)	1.00	320.
3	POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL		
	[BOTTOM] AT WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
4	POSITION SEETINGTOOL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 12		
	A1 B0 G1 A1 B0 P6 A0 12	2.00 1	080.
5	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES		

5	FASTEN	SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES		
	USING	HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
		A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12)	1.00	880.
6	FASTEN	SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES		
	TICINO	HAMMED AS MODESTAND ACTOR DE 10 / 4 E 6 7 \		

USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F10) A1 B0 F1 A0 (12) 1.00 1360. 7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES

USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 ) (A1 B0 P0 F32) A1 B0 P1 A0 (20) A1 B0 G1 1.00 6640. 8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

> AO BO GO AO BO PO T10 AO BO PO AO 1.00 100.

> > TOTAL TMU 10740.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

41,420

1 SHEET METAL SHAPE #/

18 × 19 to 17 × 20 × 31"LG TEANSFORMER.

FAB	1 3.840	8 MIN.	
MARK OUF	14330	6 MIN.	
WELD	29,290	17 MIN.	
TOTAL	57,500	34	

# File Description ? MARK OUT TRANSFORMER

Output to line-printer <Y or N> ? N

FIT WITH PER	. W 1 1 TRANSF.M70  MARK OUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR TRANS: AWL AT SHEETMETAL SHOP  TRANSFORMER OFG: 4 18-MA  NASSCO SHEETMETAL SHAPE 1  * 11 GAUGE GALV. SHEETMETAL  * 18'X19' TO 17'X20'X31'L RECTANGULAR  *TO RECTANGULAR TRANSFORMER  * OFFSET 4'  FITTER BEGINS AT WORKTABLE		
	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 A1 B0 G1 A6 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT	2.00	280.
4	WORKTABLE WITH 4 STEPS F 4  A1 B0 G1 A6 B0 P6 A0	4.00	560.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	1.00	300.
4	A1 B0 G1 (A1 B0 F1 R16) A1 B0 P1 A0 (16) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 6	1.00	2920.
5	A1 B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	6.00	660.
6	A1 B0 G1 (A1 B0 PO F3) A1 B0 P1 A0 (6) REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	1.00	280.
7	WITH 4 STEPS F 6  Al B0 G1 A6 B0 P1 A0  REMOVE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO	6.00	540.
,	WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P1 A0	2.00	180.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7)		
9	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (16) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
10	ASIDE PF 45 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3) Al BO Pl AO (45)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	2290.
	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52)	1.00	2640.
11	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	0.00	0.00
12	A1 B0 G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO 14FT. SHEAR A1 B0 G1 A81 B0 P1 A0	2.00	220. 840.
		1.00	010.

TOTAL TMU 14330.

File Description ? SHEAR SHEETMETAL FOR OFFSET TRANSFORMER Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11

TRANSF.M71

SHEAR SHEETMETAL FOR

RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH 14FT. SHEAR AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X19' TO 17'X20'X31'L RECTANGULAR --
- \* --TO RECTANGULAR OFFSET TRANSFORMER
- \* OFFSET 4'

FITTER BEGINS AT 14FT. SHEAR

	1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
	2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X3 I0 A0	2.00	120.
	3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR F 7		
	A1 B0 G1 A1 B0 P6 A0	7.00	630.
	4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 7		
	A1 B0 G1 M1 X3 I0 A0	7.00	420.
	5 REPLACE SHEETMETAL2 FROM 14FT. SHEAR TO CART AT		
	14FT. SHEAR WITH 10 STEPS F 2		
_	A1 B0 G1 A16 B0 P3 A0	2.00	420.
6	MOVE CART FROM 14FT. SHEAR TO WORKTABLE		
	A1 B0 G1 A81 B3 P1 A0	1.00	870.

TOTAL TMU

2740.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT SHEETMETAL FOR OFFSET TRANSFORMER Output to line-Printer <Y or N> ? N

(39, 1).W11 FIT

TRANSF.M72

CUT SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER

WITH SABER-SAW AT SHEETMETAL SHOP

PER TRANSFORMER OFG: 4 19-MAY-83

NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X19' TO 17'X20'X31'L RECTANGULAR --

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO

- \* -- TO RECTANGULAR OFFSET TRANSFORMER
- \* OFFSET 4'

FITTER BEGINS AT WORKTABLE

	WORKTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 F1 A0	1.00	1970.
3	FASTEN NUT [SABER BLADE] TO SHEETMETAL AT WORKTABLE 4		
	WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE		
	PF 2(4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 F10) A1 B0 P1 A0 (2)	1.00	320.
4	OPERATE SABER-SAW AT WORKTABLE PROCESS F 4		
	A1 B0 G1 M6 X67 I0 A0	4.00	3000.
5	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 4		

	STRIKES USING HAMMER AT W	WORKTABLE AND ASIDE PF 12 ( 4	
	A1 B0 G1 (A1 E	BO PO F10) A1 BO P1 A0 (12)	1.00 1360.
6		NORKTABLE TO CART AT WORKTABLE	
	WITH 4 STEPS F 2		
	I	A1 B0 G1 A6 B0 P3 A0	2.00 220.
7	MOVE CART FROM WORKTABLE T	TO 14FT HYDROPRESSBRAKE	

A1 B0 G1 A96 B0 P1 A0 1.00

TOTAL TMU 8000.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

990.

File Description ? BEND SHEETMETAL FOR OFFSET TRANSFORMER
Output to line-printer <Y or N> ? N

1) F I T .W11

TRANSF.M73

BEND SHEETMETAL FOR RECTANGULAR TO RECTANGULAR OFFSET TRANSFORMER WITH 14 FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP

PER TRANSFORMER

OFG: 4 19-MAY-83

- NASSCO SHEETMETAL SHAPE 1
- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X19' TO 17'X20'X31<sup>°</sup>L RECTANGULAR--
- \* --TO RECTANGULAR OFFSET TRANSFORMER
- \* OFFSET 4'
- \* BEND UP SIDES OF TRANSFORMER 90 DEGREES
- \* KINK UP LAP ENDS TO OFFSET ANGLE
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD ... TRANSF.M74

FITTER BEGINS AT 14FT HYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE		
_	TO 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT HYDROPESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO		
	14FT HYDROPRESSBRAKE F 6		
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
4	PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2	0.00	E 4.0
Е	A1 B0 G1 M1 X24 I0 A0 REPLACE SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO CART AT	2.00	540.
Э	REPLACE SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO CART AT 14FT HYDROPRESSBRAKE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FT HYDROPRESSBRAKE TO WORKTABLE	2.00	220.
Ü	A1 B0 G1 A96 B3 P1 A0	1.00	1020.
	111 00 01 1170 05 11 110	1.00	1020.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13840

3140.

TOTAL TMU

## File Description ? WELD TRANSFORMER

#### Output to line-printer <Y or N> ? N

(	39	,	3)

WELD .W01 TRANSF.M74

WELD TRANSFORMER WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER TRANSFORMER OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 1

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X19' TO 17'X20'X31'L RECTANGULAR-
- \* --TO RECTANGULAR OFFSET, OFFSET 4'
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

	TITTHE BIGINS III WORKIIBH		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
۷	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE  A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
_	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES  Al BO G1 M3 X0 IO Al	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	00.
U	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 B0 P6 A0	2.00	280.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
	A1 B0 G1 M1 X10 I0 A0	2.00	260.
8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1		
	WRIST-TURN USING HAND F 14 A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	14.00	980.
۵	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 14	14.00	900.
9	A1 B0 G1 M1 X0 IO A1	14.00	560.
10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL	11.00	300.
	ASSEMBLY AT WELDTABLE F 14		
	A1 B0 G1 A1 B0 P6 A0	14.00	1260.
11	OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 10		
	A1 B0 G1 M6 X173I0 A0	10.00	18100.
13	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 14	14 00	F.C.0
13	A1 B0 G1 M1 X0 I0 A1 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT	14.00	560.
13	WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 5		
	A1 B0 G1 A1 B0 P0 L16 A1 B0 P1 A0	5.00	1050.
	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	20 (4 5 6 7)	4 00	
	A1 B0 G1 (A1 B0 P1 C10) A1 B0 F1 A0 (20)	1.00	2440.

IKANSH M. 14

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2.00 220.

16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

Al B0 G1 Al31B0 F1 A0 1.00 1340.

TOTAL TMU 29290.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?

#2

# SHEET METAL SHAFE

# 10"x5"x 11"-LG STEAIGHT SECTION

	FAB	13160	8 MIN
$\bigcirc$	MARK OUT	11,730	7 MIN
	TOTAL TMU.	24,890	15 MIN.

# ile Description ? MARK OUT 11° STRAIGHT (BOTTOM & SIDES)

Output to line-printer <Y or N> ? N

(3 FIT	9, 3) .W04 <b>STRGHT.</b> MARK OUT SHEETMETAL FOR 11 STRAIGHT WITH AWL AT SHEETME	TAL SHOI	,
PER	11' STRAIGHT OFG: 4 10-MA NASSCO SHEETMETAL PART # 2  * HULL 418  * DRAWING 501-292  * V2-92008  * V6-1945  * 20 GAUGE GALV. SHEETMETAL  * DIMENSIONS : 10'X5'X11'L  * LAYOUT STRAIGHT SECTION WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE		
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE USING STEEL-TAPE AND ASIDE PF 4 (4 5 6 7)		
2	A1 B0 G1 (A1 B0 P1 M32) A1 B0 F1 A0 (4) MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT	1.00	1400.
	WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3) A1 B0 T1 A0 (12) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 2 ( 4 5 6 )	1.00	640.
4	A1 B0 G1 (A6 B0 P6) A0 (2) MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS	1.00	260.
5	USING AWL AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R16) Al BO P1 (2) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	400.
6	AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )  Al BO G1 (Al BO P6) A 0 (4)  MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS	1.00	300.
	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R5) A1 BO F1 A0 (4)	1.00	360.
	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )  Al BO G1 (Al BO F1 R3 )Al BO F1 AO (12)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	640.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 29 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (29)	1.00	1490,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

TOTAL TMU 5470.

File Description ? MARK OUT 11' STRAIGHT SECTION (TOP PIECE)

Output to line-printer <Y or N> ? N

<u>-</u>	
(39, 3) FIT W04 STRGHT ★★★	
FIT .W04 SIRGHT SECTION TOP PIECE WIT	μ δωτ. δτ
SHEETMETAL SHOP	II AWL AI
PER STRAIGHT OFG: 4 10-MA	R-83
NASSCO SHEETMETAL PART # 2	
* HULL 418 * DRAWING 501-294	
* V2-92008	
* V6-1945	
* 20 GAUGE GALV. SHEETMETAL	
* DIMENSIONS : 10'X5'X11'L	
* LAYOUT TOP PIECE WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	
FITTER DEGINO AT WORKTADDE	
1 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING	
STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 F1 M32) A1 B0 P1 A0 (4)	1.00 1400.
2 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (4)	1.00 240.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	
WORKTABLE AND ASIDE PF 2 ( 4 5 6 )	
A1 B0 G1 (A1 B0) P6 )A0 (2) 4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE	1.00 160.
5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6	
7 )	
P1 R16 )Al B0 P1 (2)	1.00 400.
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )	•
A1 WORKTABLE AND ASIDE FF 4 ( 4 5 0 )  A1 B0 G1 (A1 B0 P6 )A0 (4)	1.00 300.
6 MARK CORNERS FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS	
USING AWL AND ASIDE PF 4 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 P1 B6) A1 B0 P1 A0 (4) 7 MARK OUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00 360.
REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (8)	1.00 440.
8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	
WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 16 (4,5	
6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (16)	1.00 840.
9 MARK IDENTIFICATION ON SHEETMETAL AT WOEKTABLE 1 DIGIT	2100
USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7)	
A1 B0 G1 (A1 B0 P1 R23 )A1 B0 P1 A0 (25)	1.00 1290.
10 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	
WITH 4 STEPS	•
A1 B0 G1 A6 B0 P3 A0	1.00 110.
11 MOVE CART FROM WORKTABLE TO SHALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00 700,
AI DO CI 110, DO II AO	7+00 1001

Please input file <STRGJT.M11> ?

## File Description ? SHEAR 11' STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39 FIT	STRGHT- STRGHT- STRGHT SECTION WITH SMALL SHEAR AT STRETAL, SHOP	
~	STRAIGHT OFG: 4 10-MAR-83 NASSCO SHEETMETAL PART # 2  * HULL 418 * DRAWING 501-292 * V2-92008  * V6-1945 * 20 GAUGE GALV. SHEETMETAL	
	* DIMENSIONS : 10'X5'X11'L	
	* SMALL 8 FT. SHEAR	
	FITTER BEGINS AT SMALLSHEAR	
1	POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	
2	A1 B0 G1 A6 B0 F6 A0 2.00 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS	230.
	A1 B0 G1 M1 X6 I0 A0 1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2	100
4	A1 B0 G1 A1 B0 P6 A0 2.00 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 2	180.
	A1 B0 G1 M1 X6 I0 A0 2.00	130.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS	
	Al BO G1 A6 BO P3 A3 1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE	E 2 0
	A1 B0 G1 A67 B3 P1 A0 1.00	730.

1570.

TOTAL TMU

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? CUT 11' STRAIGHT SECTION CORNERS

Output to line-printer <Y or N> ? N

(39, 3) FIT .W04 STRGHT

CUT SHEETMETAL FOR CORNERS ON STRAIGHT WITH SNIPS AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1945
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 10'X5'11'L
- \* CUT PITTSBURGH CORNERS WITH SNIPS
- \* 11' LONG STRAIGHT SECTION FITTER BEGINS AT WORKTABLE

# 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS

	WITH 4 STEPS							
			30 G1				1.00	110.
2	CUT CORNERS ON SHEETMETAI					ING		
	SNIPS AT WORKTABLE AND A	SIDE	PF 12 (	4 5 6	7)			
	A1 B0 G1 (A1	B0 P	3 C3)	A1 B0	) P1	A0 (12)	1.00	880 .
3	FASTEN ( FLATTEN ) SHEETN	JATEN	AT WORK	TABLE	1 STR	IKE		
	USING HAMMER AT WORKTABL	E AND	ASIDE	PF 36	( 4 5	67)		
	A1 B0 G1 (A1	B0 F	0 F3	)A1 B0	) P1	A# (36)	1.00	1480.
4	PLACE SHEETMETAL FROM WOR	RKTABI	LE TO CA	ART AT	WORKT.	ABLE		
	WITH 4 STEPS							
		A1 I	B0 G1	A6 B0	) P3	A0	1.00	110.
5	MOVE CART FROM WORKTABLE	TO LA	TUOGA					
		A1 E	30 G1	A54 B0	) P1	A0	1.00	570.

TOTAL TMU 3150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

### File Description ? LAPOUT 11' STRAIGHT SECTION

# \_Outsut to line-spinter <Y or N> ? N

(39, 3)

FIT .WO4

STRGHT

FORM SHEETMETAL FOR 11" STRAIGHT SECTION WITH LAPOUT MACHINE AT SHEETMETAL SHOP

OFG: 4 10-MAR-83 PER STRAIGHT NASSCO SHEETMETAL PART # 2

- \* HULL 418 \* DRAWING 501-292
- \* V2-92008
- \* V6-1945
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS : 10'X5'X11'L
- \* LAPOUT IS ROTARY MACHINE
- \* LAPOUT 1 END OF STRAIGHT SECTION

FITTER BEGINS AT LAPOUT

1	PLACE	SH	EETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	$\mathtt{WITH}$	4
	STEPS	F	2								

				G1	Аб	В0	Р3	A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCE	SS F	2							
		A1	B0	G1	M1	X16	ΙO	A0	2.00	380.
3	REPLACE SHEETMETAL FROM	LAP	OUT	TO C	CART	AT L	APOU	T WITH		
	4 STEPS									
		A1	В0	G1	Аб	B0	P3	A0	1.00	110.
4	MOVE CART FROM LAPOUT TO	PIT	TSB	JRGH						
		A1	в0	G1	Аб	в0	Ρ1	A0	1.00	90.

TOTAL TMU 200.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

-5520

Please input file <STRGHT.M14> ?

File Description ? FORM PITTSBURGH ON 11' STRAIGHT SECTION
Output to line-printer <Y or N> ? N

(39, 3) FIT .W04 STRGHT

FORM SHEETMETAL FOR 11' STRAIGHT SECTION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1945
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS : 10'X5'X11'L
- \* FORM PITTSBURGH ON BOTTOM SECTION
- \* FORM EDGE ON TOP SECTION

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH		
A1 B0 G1 A1 B0 P3 A0	1.00	60.
2 PUSH PITTSBURGH-BUTTON PROCESS F 2		
A1 B0 G1 M1 X32 I0 A0 3 PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 2	2.00	700 •
A1 B0 G1 M1 X0 I3 A0	2.00	120.
4 PUSH GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS		
F 3		
A6 B0 G1 M1 X0 I3 A0	3.00	330.
5 PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH		
WITH 4 STEPS		
A1 B0 G1 A6 B0 P3 A0	1.00	110.
6 MOVE CART FROM PITTSBURGH TO LEAFBRAKE	1 00	250
A1 B0 G1 A32 B0 P1 A0	1.00	350.

TOTAL TMU 1670.

Type D.EM.CT.EX.T.W (or H for help) ?

### INVALÍD ENTRY IN CSCAN

# Invalid command.

## Pe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ? T

Please input file <STRGHT.M15> ?

File Description ? BEND 11' STRAIGHT 'SECTION

Output to line-printer <Y or N> ? N

(39, 3) FIT .W04 STRGHT

BEND SHEETMETAL FOR 11' STRAIGHT SECTION WITH LEAF BRAKE AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART # 2

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1945
- \* 20 GAUGE GALV. SHEETMETAL
- \* BEND SIDES UP 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X16 I0 A0	2.00	430.
3	PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
4	MOVE CART FROM LEAFBRAKE TO WORKTABLE		
	Al BO G1 A81 B3 P1 AO	1.00	370.

Type D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

8.790

1600.

TOTAL TMU

# File Description ? ASSEMBLE 11' STRAIGHT SECTION Output to line-printer <Y or N> ? N

FIT .W11 STRGHT.Ml6 ASSEMBLE SHEETMETAL PIECES FOR 11' STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP OFG: 4 06-JUL-83 PER STRAIGHT NASSCO SHEETMETAL SHAPE 2 \* HULL 418 \* DRAWING 501-292 \* V2-92008 \* V6-1945 \* 20 GAUGE GALV. SHEETMETAL \* DIMENSIONS: 10'X5'X11' LG \* SECURE TOP PIECE TO BOTTOM PIECE \* SECURE PIECES WITH PITTSBURGH FITTER BEGINS AT WORKTABLE 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2 2.00 220. A1 B0 G1 A6 B0 P3 A0 2 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) (A1 B0 P0 F6) A1 B0 P1 A0 (12) 1.00 880. A1 B0 G1 3 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 2 STEPS A1 B0 G1 A3 B0 P6 A0 1.00 110. 4 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4 A1 B0 G1 A1 B0 P3 A0 4.00 240. 5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 1.00 320. (4) 6 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (4) 1.00 480. 7 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (6) 1.00 2020. 8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS AO BO GO AO BO PO T10 AO BO PO AO 1.00 100 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

TOTAL TMU

SHEFT METAL SHAPE

# 18"x 12"x 18"16. STEALGHT SECTION

, FAB	16.000	10 MIN.	
MARK out	13,300	8 MIN.	·
TOTAL TMU.	29,300	18 MIN.	

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION Output to line-Printer <Y or N> ? N

	, 1) .W11 STRGHT.M50 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHE	ETMETAL	
SHOF PER	STRAIGHT SECTION OFG: 4 13-MAY NASSCO SHEETMETAL SHAPE 2 * 18 GAUGE GALV. SHEETMETAL * 18'X12'X18'L STRAIGHT SECTION * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	Y-83	
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE	1 00	200
2	A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 MARK DIMENSION FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	1.00	380.
3	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4)  MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF  WORKTABLE WITH 9 STEPS	1.00	240.
4	A1 B0 G1 A16 B0 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	1.00	190.
5	A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3) MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 (4 5 6 7)	1.00	1060.
6	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WITH 1 STEP F 5	1.00	340.
7	A1 B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE PF 5 (4567)	5.00	550.
8	A1 B0 G1 (A1 B0 P1 A3) R16A1 B0 P1 A0 (5) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1.00	450.
9	A1 B0 G1 A6 B0 P6 A0 POSITION CORNER TEMPLATE FROML; SHEETMETAL TO SHEETMETAL AT WORKTABLE F 7	1,00	140.
10	A1 B0 G1 A1 B0 P6 A0  MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2  DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP	7.00	630.
11	Al BO G1 Al BO P1 R6 Al BO P1 AO MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7)	1.00	120.
12	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (7) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	600.
13		4.00	360.

	14	A1 B0 G1 A1 B0 P0 F3 )A1 B0 P1 A0 (4) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	200.
	15	USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO Gl (Al BO Pl Rl6) Al BO Pl AO (3) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS	1.00	580.
	6	USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al B0 Gl (Al B0 Pl R6) Al B0 Pl A0 (8)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )	1.00	680 .
	17	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (15) MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	790 .
	18	A1 B0 G1 A16 B0 P1 A0 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1000	190.
	19	A1 B0 G1 A1 B0 P6 A0 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)	1.00	90.
	20	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	1.00	680 .
	21	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	680.
	22	ASIDE PF 15 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3) Al BO Pl AO (15)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	790 .
`	3	A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (52) PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
	2.4	Al BO G1 A6 BO P3 A0	2.00	220 .
	<b>4</b> 4	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 P1 A0	1.00	700.
		TOTAL TM	J	13300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

# Output to line-printer <Y or N> ? N

(39, 1) FIT .W11 STRGHT.M51 SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SH	EAR AT	
SHEETMETAL SHOP PER. STRAIGHT SECTION NASSCO SHEETMETAL SHAPE 2 OFG: 4 13-MA	.Y-83	
* 18 GAUGE GALV. SHEETMETAL  * 18'X12'X18' L STRAIGHT SECTION		
* SHEAR TOP AND BOTTOM PIECES FOR STRAIGHT FITTER BEGINS AT SMALLSHEAR		
1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
A1 B0 G1 A6 B0 P6 A0	2.00	280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2 A1 B0 G1 M1 X6 I0 A0	2.00	180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2	2.00	180.
A1 B0 G1 A1 B0 P6 A0	2.00	180.
4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2		
A1 B0 G1 A16 B0 P3 A0	2.00	420.
5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE A1 B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU

1790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ? N

(39, .W11 1) STRGHT.M52 FIT CUT SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP PER STRAIGHT SECTION OFG: 4 13-MAY-83 NASSCO SHEETMETAL SHAPE 2 \* 18 GAUGE GALV. SHEETMETAL \* 18'X12'X18'L STRAIGHT SECTION FITTER BEGINS AT WORKTABLE 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2  $$\rm A1~B0~G1~A6~B0~P3~A0~2~CUT~CORNERS~ON~SHEETMETAL~AT~WORKTABLE~2~CUTS~USING}$ 2.00 220. SNIPS AT WORKTABLE AND ASIDE PF 14 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P3 C3) A1 B0 P1 A0 (16) 1.00 1160. 3 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) (A1 B0 P0 F6) A1 B0 P1 A0 (16) A1 B0 G1 1.00 1160. 4 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE A1 B0 G1 A1 B0 P3 A0 2.00 120. 5 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT A1 B0 G1 A54 B0 P1 A0 1.00 570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5020

3230.

TOTAL TMU

### File Description ? FORM LAP END ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

-	1 7	9	1	١
- 1		. 4		)
١.		, ,	_	,

FIT, W11 STRGHT.M53

FORM LAP END ON STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

OFG: 4 13-MAY-83 PER STRAIGHT SECTION
NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE GALV, SHEETMETAL \* 18'X12'X18' L STRAIGHT SECTION

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	${ t LWITH}$	4
	STEPS	F 2								

		AL BO	G1	Аб	в0	Р3	A0	2.00	220.
2 1	PUSH LAPOUT-SWITCH PROCE								
		Al BO	G1				A0	2.00	380.
3	PUSH AND GUIDE SHEETMETA	AL THROU	GH LA	APOU'	T WIT	TH 2	STEPS		
	F 2		~ 4				- 0	0 00	1.60
		A3 B0						2.00	160.
4 .	REPLACE SHEETMETAL FROM	LAPOUT '	TO CA	ART'	A'I' LA	APOU'	I. MITH		
	4 STEPS F 2	7.7 7.0	~1	<b>3</b> 6	<b>-</b> 0		7.0	0.00	000
_		Al BO						2.00	220.
5	MOVE CART WITH SHEETMET			-	_			1 00	0.0
		Al BO	ĠΙ	Аб	В0	PI	A0	1.00	90.

TOTAL TMU 1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

6090

### File Description ? FORM PITTSBURGH ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

W11FIT, STRGHT.M54

FORM PITTSBURGH ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER STRAIGHT SECTION

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 2

\* 18 GAUGE GALV, SHEETMETAL

\* 18'X12'X18' L STRAIGHT SECTION

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH		
	WITH 4 STEPS		
	Al BO G1 A6 BO P3 AO	1.00	110.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4		
	Al BO G1 M1 X32 IO AO	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2		
	STEPS F 4		
	A3 B0 G1 Ml X0 I3 A0	4.00	320.
4	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT		
	PITTSBURGH WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.

TOTAL TMU 2050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 STRGHT.M55

BEND SHEETMETAL FOR STRAIGHT SECTION WITH LEAFBRAKE AT SHEETMETAL SHOP

OFG: 4 13-MAY-83 PER STRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE GALV, SHEETMETAL \* 18'X12'X18'L STRAIGHT SECTION
- \* BEND UP SIDES ON STRAIGHT 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO		
	LEAFBRAKE WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER PROCESS		
	Al BO G1 M6 X16 IO AO	1.00	240.
3	POSITION SHEETMETAL FROM LEAFBRAKE TO LEAFBRAKE		
	Al BO G1 Al BO P6 AO	1.00	90.
4	OPERATE LEAFBRAKE-LEVER PROCESS		
	Al BO G1 M6 X16 IO AO	1.00	240.
5	REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE		
	WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
	MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE		
	Al B0 G1 A81 B3 P1 A0	1.00	870.

TOTAL TMU 1690.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

FIT,	, 1) W11 STRGHT.M56 ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP STRAIGHT OFG: 4 21-JU NASSCO SHEETMETAL SHAPE 2 * 18 GAUGE GALV. SHEETMETAL * 18'X12'X18'L STRAIGHT SECTION * FLATTEN LAP ENDS		
	FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	2.00	220.
3	Al B0 G1 (A1 B0 PO F6) A1 B0 P1 A0 (12) POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT	1.00	880.
4	WORKTABLE WITH 2 STEPS  Al B0 G1 A3 B0 P6 A0  PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	1.00	110.
5	WORKTABLE F 6 Al B0 G1 Al B0 P3 A0 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES	6.00	360.
6	USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F6) A1 BO P1 AO (6) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES	1.00	460.
7	USING HAMMER AT WORKTABLE. AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F10) A1 BO P1 A0 (6) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	700.
0	USING HAMMER AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 ) Al B0 G1 (Al B0 P0 F32) Al B0 P1 A0 (10)	1.00	3340.
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0	1.00	100.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,000

6170.

TOTAL TMU

SHEET METAL SHAPE

# 10"X6"X 16"LG. STRAIGHT SECTION

FAB	. 8230	5 MIN	
MARK OUT	11760	7 MIN.	
WELD	16900	10 MIN.	
TOTAL TMU	36 890	ZZ MIN.	

# File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N (39, 1)FIT .W11 STRGHT.M80 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEETMETAL SHOP PER STRAIGHT SECTION OFG: 4 24-MAY-83 NASSCO SHEETMETAL SHAPE 2 \* 11 GAUGE GALV. SHEETMETAL \* 10'X6'X16' STRAIGHT SECTION \* MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (Al B0 P1 M32) Al B0 P1 A0 1.00 1400. 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 10 (  $4\ 5\ 6\ 7$  ) Al BO G1 (A1 BO P1 R3) A1 BO P1 AO (10) 1.00 540. 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5 Al BO G1 Al BO P6 AO 5.00 450. 4 MARK LINES FROM STRAIGHTEDGE TO SHEETHETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 AL BO G1 (A1 BO P1 R16) A1 BO P1 AO (5) 1.00 940. 5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 10 Al B0 G1 Al B0 P6 A0 10.00 900. 6 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7) Al B0 G1 (A1 E0 P1 R6) A1 B0 F1 A0 (10) 1.00 840. 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4 Al B0 G1 Al B0 P6 A0 4.00 360. 8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO FO F3) A1 BO P1 AO (4) 1.00 200. 9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
Al BO G1 (A1 B0 P1 R16) A1 B0 P1 A0 (5) 1.00 940. 10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 29 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3) A1 BO P1 AO (29) 1.00 1490. 11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7) Al B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (52) 1.00 2640. 12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 Al BO G1 A6 BO F3 AO 2.00 220. 13 MOUE CART FROM WORKTABLE TO 14FT.SHEAR

Al BO G1 A81 BO P1 AO 1.00 840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for heir> ?

# File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION Output to line-printer <Y or N> ? N

(39,1) FIT .W11 STRGHT.M81 SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT.SHEAR AT SHEETMETAL SHOP OFG: 4 24-MAY-83 PER STRAIGHT SECTION NASSCO SHEETMETAL SHAPE 2 \* 11 GAUGE GALV. SHEETMETAL \* 10'X6'X16' STRAIGHT SECTION \* SHEAR STRAIGHT TOP AND BOTTOM PIECES FITTER BEGINS AT 14FT.SHEAR 1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2 Al B0 G1 A6 B0 P6 A0 2.00 280. 2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS AL BO G1 М1 X3 IO AO 1.00 60. 3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 2 Al BO G1 Al BO P6 A0 2.00 180. 4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2 Al B0 G1 M1 ΙO A02.00 120. Х3 5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 12 STEPS F 2 Al P0 G1 A24 B0 P3 A0 2.00 580. 6 MOVE CART FROM 14FT.SHEAR TO WORKTABLE A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 2090.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

Output. to line-Printer <Y or N> ? N

(39, 1) FIT .W11 STRGHT.M82

CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL

SHOP

PER STRAIGHT SECTION OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2

\* 11 GAUGE GALV. SHEETMETAL

- \* 10'X6'X16' STRAIGHT SECTION
- \* CUT CORNERS FOR STRAIGHT SECTION

FITTER BEGINS AT WORKTABLE

1	PLACE	S	HEETME	TA:	L	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	4	STEPS	F	2						

	Al BO G1 A6 BO P3 A0	2.00.	nn -
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
_	A96 B0 G1 A96 B3 P1 A0	1.00.	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS		
	Al B0 G1 M6 X67 I0 A0	1.00	750.
4	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G11 A6 BO P3 A0	2.00	220.
5	MOUE CART FROM WORKTABLE TO 14FT HYDROFRESSBRAKE		
	Al BO G1 A96 BO P1 AO	1.00	990.

TOTAL TMU 4150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 STRGHT.M83

BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE

AT SHEETMETAL SHOP

PER STRAIGHT SECTION OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2

\* 11 GAUGE GALV. SHEETMETAL

- \* 10'X6'X16'L STRAIGHT SECTION
- \* BEND SIDES OF STRAIGHT UP 90 DEGREES
- \* COMPLETE IN WELD BOOTH AREA
- \* COMPLETE IN MWELD...SEE STRGHT.M84

FITTER BEGINS AT 14FT HYDROPRESSBRAKE

	1 POSITION SHEETMETAL FROM CART AT 14FT HYDROFRESSBRAKE		
	TO 14FT HYDROPRESSBRAKE WITH 4 STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
	2 PUSH 14FT HYDROFESSBRAKE-FOOTPEDAL PROCESS		
	Al BO G1 M1 X24 IO AO	1.00	270.
	3 POSITION SHEETMETAL FROM 14FT HYDROPRESSBRAKE TO		
	14FT HYDROPRESSBRAKE WITH 5 STEPS		
	Al BO G1 A10 BO P6 A0	1.00	180.
	4 PUSH 14FT HYDROPESSBRAKE-FOOTPEDAL PROCESS		
	A1 B0 G1 M1 X24 I0 A0	1.00	270.
5	REPLACE SHEETMETAL2 FROM 14FT HYDROPRESSBRAKE TO CART AT		
	14FT HYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
	6 MOVE CART FROM 14FT HYDROPRESSRRAKE TO WORKTABLE		
	A1 B0 G1 A96 B3 P1 A0	1.00	1020.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

8230

1990.

TOTAL TMU

## File Description ? WELD STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

WELD WELD	,101) , W01 STRGHT.M84 WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMET DING BOOTH STRAIGHT SECTION OFG: 4 21-JUI WELDING NASSCO SHEETMETAL SHAPE 2 * 11 GAUGE GALV. SHEETMETAL * 10'X6'X16'L STRAIGHT SECTION * WELDING DONE IN WELD AREA BOOTH * WELDOR PERFORMS THE WORK * FITTER TRANSPORTS SHEETMETAL FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P3 A0 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
	A1 B0 G1 A131 B3 P1 A0 PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE	1.00	1370.
	WITH 4 STEPS F 2  Al BO G1 A6 B0 F3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	2.00	220.
5.	A3 B0 G1 M1 X0 IO A32 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370.
	WELDMACHINES TO ON AT WELDMACHINES  A1 B0 G1 M3 X0 I0 A1	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
7	A3 B3 G1 A1 B0 F6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2	2.00	280.
	Al BO G1 M1 X10 IO AO	2.00	260.
8	WELDOR FASTEN WELDOR TO STINGER-BUTTON1 AT WELDTABLE 1 WRIST-TURN USING HAND F 7	<b>7</b> .00	400
9	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 7	7.00	490.
	A1 B0 G1 M1 X0 I0 A1 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL	7.00	280.
	ASSEMBLY AT WELDTABLE F 7 A1 B0 G1 A1 B0 P6 A0	7.00	630.
11	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F	7.00	030.
12	A1 B0 G1 M6 X17310 A0 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F7	5.00	9050.
	Al BO Gl Ml XO IO Al	7.00	280.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 3 (4567)		
WEI	Al BO Gl (Al BO PO L16 )Al BO P1 AO (3)  LDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10  ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF	1.00	550.
	10(4567) Al B0 G1 (Al B0 F1 C10) Al B0 P1 A0 (10)	1.00	1240.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2
Al B0 G1 A6 B0 P3 A0 2.00 220.

16 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
Al B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 16860.

File Description ? WELD STRAIGHT SECTION
Output to line-printer <Y or N> ?

SHEET METAL SHAPE

# 12"x8"x35"LG STEATGHT SECTION

FAB	16470	10 MIN.	
MARK OUT	12,570	8 MIN.	
TOTAL	29,040	17 MIN.	
	,		

i iii ii		ا المحمد المحمد المحم	NAUBCO	ANAL VALLE	uh kaketik	n dùi ji gʻa			Pl.	irpantu 67/1	3/52 1116ì	HAĞÊ Â
1442	CHECTON	1. 18	a objectivien	PANAMATEN	દેઇ કામ સામુ	TURE WAT		LACTUAL .	*	START DATE	Onavitud Info	Ť
			TANE NEOUTALD					•		05/00/06 En/10/10	124230120482	61/67/43
 	Vz-Habot	in the second	PA i là fèiet mis de li la Af	化化环 化复数电池电池	NGUC	NARC	Maria ya wasa Maria ya wasa	NAGC	H	00/00/00 E8/01/10	400001-000-484 CBNUINIO	81/15/03
	behalf-kv	428	TORREST INSTALLAT	iun Vallendos	wiee !	TOP LARGE ST	illitec !	hare	<b>H</b>	00/00/00	A SKI-NO JIEGO BOW	61/16/16
	Va-dido?	426	(14 Ben) Vent Guet	. A DRAHACH	00/00/00	\$9\\$9\99 \$\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\\$\	19506545	66/66/66	H	00/00/00	4241-501-140-	ชัย/จัดได้ใช้
	* * *		THE TALL ZONE OF THE PROPERTY			, · · · · · · · · · · · · · · · · · · ·	10/54/85	564566466	ing <b>H</b> aif	60/00/00	444-301-148	201717/63
	VA-91560		ANSTALL ZUNE 91 - LL DES VEHT OUET DUSHUT FAS SPIRAL ENSTALL ZUNE 91	unphi beck	00/00/do	000,0000	10/15/02	00/00/00	i i	88/29/89	424.501.140	Envrivo"
: : : ;	verblada	128	. U	EN BRITATES	* 68/66/06	68/66/08	10/21/04	66/66/66	· 4	80/00/08 01/45/03	124-15111-1526 12/65/62	1 1/24/63 61/24/63
3 (j. ) 1	va-itt off	426	Lia hall the multiple	EN OR HORT	dó/od/öð	66790700	11/04/02	00/00/00		01/25/01	127 mg 31 320-	ั่งโ/สร/ยัง เ
e Gerja		•	ACCAPTED TO THE STATE OF THE ST		•				1, H	01/25/03	- designationed	\$ 01/25/15
eris Val	V2-03803		COHELETE INSTALTA	, , , , , , , , , , , , , , , , , , , ,				HARC	· * *	66/66/69 61/25/83	ocomion this	้ 6 ( / ฮิฮ / คริ
	v#.adb64		ZONE 83					ું મામે હદ	. u	06/00/00	SEE STANDERS AND SEE ST	
. 1			teo dest vent man	ii oun Hineri	dà/đu/dó	00700700	11218288	80/00/00	i H	\$\$\\$\$\\$\$	424+691+920- 01/10/03	

File Description ? MARK OUT STRAIGHT SECTION
Output to line-printer <Y or N> ? N

	39, 3) IT .W08 STRGHT-		
	MARK OUT SHEETMETAL FOR 12X8X35 STRAIGHT SECTION WITH	AWL AT	
	HEETMETAL SHOP ER STRAIGHT SECTION OFG: 4 28- NASSCO SHEETMETAL SHAPE #2 * HULL 418 * DRAWING 501-292 * V2-92008 * V6-1917	MAR-83	
	* 20 GAUGE GALV. SHEETMETAL * 12'X8'X35'L STRAIGHT SECTION * MARK OUT BOTTOM & TOP WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE		
	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1400.
	USING AWL AND ASIDE PF 10 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (10)  POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	540.
4	WORKTABLE F 3 A1 R0 G1 A1 B0 F6 A0 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT	3.00	270.
	USING AWL AND ASIDE PF 3 ( 4 5 6 7) A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (3)	1.00	190.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 10 A1 B0 G1 A1 B0 F6 A0	10.00	900.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )		
7	A1 B0 G1 (A1 B0 F1 R6) A1 B0 F1 A0 (10) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	1.00	840.
8	A1 B0 G1 A1 B0 F6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 2 STRIKES	8.00	720.
9	USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F6) A1 BO P1 AO (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS	1.00	600+
	USING REDPEN AT WORKTABLE AND ASIDE PF 22 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R6) A1 B0 F1 A0 (22)	1.00	1800.
10	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 36 (4 5 6 7 )		
1 1	A1 B0 G1 (A1 B0 P1 R3) A0 B0 P0 A0 (36) MOUE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE	1.00	1820.
	A1 B0 G1 A1 B0 F1 A0 2 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	40.
	USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)  Al BO G1 (A1 BO P1 R3) A1 B0 F1 A0 (52)	1.00	2640.
	AT DO OT (AT DO IT KO) 111 DO 11 AO (32)	<b>1.</b> 00	2010.

# 13 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 F3 A0 1.00 110.

MOVE CART FROM WORKTABLE TO SMALLSHEAR
A1 B0 G1 A67 B0 F1 A0 1.00 700.

TOTAL TMU 12570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION
Output to line-printer <Y or N> ? N

FIT SHEE	, 3) .W11 STRGHT.M31 SHEAR SHEETMETAL FOR 12'X8' STRAIGHT SECTION WITH SMALL SHEAR AT ETMETAL SHOP STRAIGHT SECTION OFG: 4 07-JUL-83 NASSCO SHEETMETAL SHAPE # 2 * HULL 418 * DRAWING 501-292 * V2-92008 * V6-1917 * 20 GAUGE GALV. SHEETMETAL * 12'X8'X35'L STRAIGHT SECTION * SHEAR TOP & BOTTOM PIECES OF STRAIGHT FITTER BEGINS AT SMALLSHEAR	
1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2  A1 B0 G1 A6 B0 P6 A0 2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	
3	A1 B0 G1 M1 X6 I0 A0 1.00  POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH  3 STEPS F 2	90.
4	A1 B0 G1 A6 B0 F6 A0 2.00 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	280.
	A1 B0 G1 M1 X6 I0 A0 2.00	180.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS F 2	
_	A1 B0 G1 A6 B0 P3 A0 2.00	220.
6	MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE A1 B0 G1 A67 B3 P1 A0 1.00	730.

TOTAL TMU

1780.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### Please input file <STRGHT.M32> ?

le Description ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

39	

FIT .W08 STRG

CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETAL SHOP PER STRAIGHT OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 2

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1017
- \* 20 GAUGE GALV. SHEETMETAL
- \* 12'X8'X35'L STRAIGHT SECTION
- \* FLATTEN CORNERS AFTER CUTTING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 F3 C3) A1 B0 P1 A0 (12)	1.00	880.
3	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (12)	1.00	880.
4	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS	1 00	110
_	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO PITTSBURGH A1 B0 G1 A54 B0 F1 A0	1.00	570.
	TOTAL TMU	Г	2550.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM PITTSBURGH EDGE ON STRAIGHT SECTION
Output to line-printer <Y or N> ? N

(39, 3) FIT .W08 STRG

FORM SHEETMETAL FOR FITTSBURGH EDGE ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER STRAIGHT SECTION OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE # 2

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1917
- \* 20 GAUGE GALV. SHEETMETAL
- \* 12'X8'X35'L STRAIGHT SECTION
- \* FORM 90 DEGREE EDGE
- \* FORM EDGE ON BACK SIDE OF PITTS. MACHINE

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	A1 B0 G1 M1 X32 I0 A0	2.00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT		
	PITTSBURGH WITH 4 STEPS F 2		
	A6 B0 G1 M1 X0 I3 A0	2.00	220.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT		
	PITTSBURGH WITH 6 STEPS F 2		
	A10 B0 G1 M1 X0 I3 A0	2.00	300.
5	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT		
_	PITTSBURGH WITH 4 STEPS		
	A1 B0 G1 A6 B0 F3 A0	1.00	110.
6	MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO	1.00	
Ŭ	CORNICEBRAKE		
	~~···		

A1 B0 G1 A24 B0 F1 A0 1.00

TOTAL TMU 1820,

270,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### Please input file <STRGHT.M34> ?

le Description ? BEND 90 DEGREE BEND IN STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 3).W08 FIT,

STRG

BEND SHEETMETAL TO 90 DEGREE BEND IN STRAIGHT SECTION WITH CORNICE BRAKE AT SHEETMETAL SHOP PER STRAIGHT OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 2

\* HULL 418

\* DRAWING 501-292

\* V2-92008

\* V6-1917 \* 20 GAUGE GALV, SHEETMETAL

\* 12'X8'X35'L STRAIGHT SECTION

\* MARK OUT BOTTOM AND TOP

FITTER BEGINS AT CORNICEBRAKE

1	PLACE SHEETMETAL FROM CART AT CORNICEBRAKE TO		
	CORNICEBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2		
	A1 B0 G1 M6 X42 I0 A0	2.00	1000.
3	REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT		
	CORNICEBRAKE WITH 4 STEPS		
	001111011111111111111111111111111111111	1.00	110.
4	MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO		
	WORKTABLE		
	·····	1.00	600.
	111 20 01 1131 23 11 110	1.00	000.

TOTAL TMU 1820.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? ASSEMBLE STRAIGHT SECTION

Output tO line-Printer <Y or N> ? N

(39,	2 /	
(39.	21	

FIT .W11 STRGHT.M35

ASSEMBLE SHEETMETAL FOR 12X8 STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 07-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* HULL 418
- \* DRAWING: 501-292
- \* V2-92008
- \* V6-1917
- \* 20 GAUGE GALV, SHEETMETAL
- \* 12'X8'X35' LG STRAIGHT SECTION
- \* ASSEMBLE TOP TO BOTTOM OF STRAIGHT

\*

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE		
	A1 B0 G1 A1 B0 F6 A0	1.00	90.
3	POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 8		
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF $8$ ( $4$ $5$ $6$ $7$ )		
	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (8)	1.00	600.
5	FASTEN SHEETMETAL TO SHEETHETAL AT WORKTABLE 3 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 P0) A1 B0 F1 A0 (6)	1.00	460.
6	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )		
_	A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (19)	1.00	6310.
7	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

TOTAL TMU

8500.

SHEET METAL SHAPE.

# 17"x 14" x 33" LG. STEAIGHT SECTION

FAB	20490	12 MIN.	
MARK out	14610	9 MIN.	
TOTAL TMU.	35100	El MIN.	

		:												
ii 62	A 2		سه سده فیسم رو رو		i	************	ur intert					REPARED 0971	3/d2 ilio1	PAGE 1
CON	i.k	हुद्दे हैं एक स्वार्थ	i avet	o dacate	PLON TO	PANAMUTER	ENGLING OF THE		SCHED 4	JAUTUAE.	Fliggit	Flact Bath	BUUNTHE' INL	nauthu .
	٠,	-01501		學24年 直 日	をす ぶんし	de donniete N'ruc'sLe	intc	MUKE	NHEG	NHHC	ź	10/29/88	424 1501-000	<b>ู้ 1 1 / ธุร/ รู</b> ช
J	Ù #	31808		SONE SE	INATALE	ASING	NACE .	Annea - Car	Hise	Anne.	ž	1/01/02	12/00/02 12/00/02	18/07/04
<b>j</b>	٧v	); 10686~		FURTALLETE,	ingfalk i	ZV4001	HHEC	None	Nitte	. Nako	Ż	1/08/83	12709782	รื่องเข้ารัฐ รื่องเข้ารัฐ
, Prop.	Vá	, 9 i 8 9 j	420	EUMPLETE.	LAJAYALL.	/241 801 3 %	NHEE	m w lines	Nulle :	्रे किस्स्ट	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	11/00/02	124-581=146 18/10/62	13/14/42
	٧è	មាន១០ <u>។</u>		COMPLETS	installa B A bk	Had Va-naous	l med	NHES	HARC	white	*	11/10/02	15/11/03	<b>ี</b> เลาไรกลี
	. Ve	- 	428			KA LANI ANEWS SE		A SO NHUE	Mic	Ned	ž.	11/10/8	124-051-090	18711781
•	v ž	i- 91306	486	EUNE BR	i gint and	Va. 01000	inec	in the	HHEC	Minted	1	11/14/04	029-801-100 12/22/02	12/22/02
د زير	. • • •	1486	1.425	BOHELBEE	an really	MAN YA MENGY	HHEE	NHEE TO SEE	· Miles	Hunc	, H	89785785	9 1 1 0 3 7 8 3 9 1 1 0 3 7 8 3 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ชี้ติ้งย <i>ั</i> ง ( 6 <sup>55</sup>
	V 2	inest i	426	Edna oz	MATALLA	rion va need		NAC CONTRACTOR	MIREC	NAUC	<b></b>	60/09/09	6 24-381 100E	ซื้องเอ็จ เ <sub>ชื</sub>
	V	k 03361	448	THU HOUSE SUNE OR SUNE OR SUNE OR	INNYALLX	4 I GM   A Sm # 300	, 'NHER	NAME	NHE'S	nued	н	87/85/82	\$244581~048	<b>รัชงะอิงเ</b> ชา
	v	4 41 2 0 C	420	ZUNE US	(1) [1] [1] [1] [1] [1] [1] [1] [1] [1] [1]	NS - 2100 g	Micc	NHEG	thick	HILLE	н	82/28/23	erice of the	าติเรื่องเพื่อ
" "…"		. *1461	1114	THE SHEET	SPOOLS &	THE HAMPING TO	g Hype	· · · · · · · · · · · · · · · · · · ·	, Marc.	Hnte	ș H.	65/66/63 68/49/63	12/01/02	01/01/63
	·	*	•		64 '86 N N 2	#83 <b>₹</b> •	* *			•		,		

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION Output to line-printer  ${\tt Y}$  or N> ? N

ΊΤ			
SHOE	MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEE'	TMETAL	
	STRAIGHT SECTION OFG: 4 16-MAN NASSCO SHEETMETAL SHAPE 2  * 18 GAUGE GALV, SHEETMETAL  * 17'X14'X33'L STRAIGHT SECTION  * MARK OUT STRAIGHT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	Y-83	
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING. STEEL-TAPE AT WORKTABLE AND ASIDE		
2	A1 B0 G1 A1 B0 P1 M32 A1 B0 P1 A0 MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	330.
3	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (4)  MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF  WORKTABLE WITH 9 STEPS	1.00	240.
4	A1 B0 G1 A16 B0 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	190.
5	STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO Gl (Al BO Il M32) Al BO Pl AO (3)  MARK DIMENSIONS FROM STEEL-TAPE TO SHEETMETAL AT  WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	1060.
6	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (6) POSITION STRAIGHTEDGE-FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 5	1.00	340.
7	A1 B0 G1 A3 B0 P6 A0  MARK LINES FROM STRAIGHTEDGE TO SHEETHETAL AT WORKTABLE  5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP  F 5	5.00	950.
8	A1 B0 G1 A1 B0 P1 R16 A1 B0 F1 A0 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	5.00	1100.
9	A1 B0 G1 A6 B0 P6 A0 POSITION CORNER TEMPLATE FROM SHEETMETAL TO SHEETMETAL	1.00	140.
10	AT WORKTABLE F 7  A1 B0 G1 A1 B0 P6 A0  MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP	7.00	630.
11	AND ASIDE Al BO G1 A1 B0 P1 A3 R6 A1 B0 P1 A0 MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF	1.00	150.
POS	7 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R6) Al BO Pll AO (7) SITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	600.
13	WORKTABLE F 4  Al B0 G1 A1 B0 P6 A1  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	4.00	360.

HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO PO F3) Al BO Pl AO (4 14 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	) 1.00	200.
USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3 15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS	) 1.00	580.
USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7) Al BO Gl (Al BO Pl R6) Al BO Fl AO (8 16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	) 1.00	680.
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 F1 R3) A1 B0 P1 A0 (15	) 1.00	790.
17 MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS A1 B0 G1 A16 B1 P1 A0 18 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	190.
AT WORKTABLE F 3  Al B0 G1 A1 B0 P6 A0  19 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2	8.00	720.
DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)  Al BO Gl (Al BO Pl R6) Al BO Pl AO (8	) 1.00	630.
20 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (8		630.
21 MARK CONSTRUCTION INFORMATION. ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (15 22 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	) 1.00	790.
A1 B0 G1 (A1 B0 P1 R3) A1 B0 F1 A0 (52 23 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		2640.
WITH 4 STEPS F 2  Al BO Gl A6 BO P3 A0		220.
24 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 F1 A0	1.00	700.
TOTAL	TMU	14610.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION Output to line-printer <Y or N> ? N

(39, 1) FIT .W11 STRGHT

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR' AT SHEETMETAL SHOP

PER DSTRAIGHT SECTION

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE GALV. SHEETMETAL
- \* 17'X14'X33' L STRAIGHT SECTION
- \* SHEAR TOP & BOTTOM PIECES FOR --
- \* -- STRAIGHT SECTION

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P6 A0 2.00 280. 2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2 A1 B0 G1 M1 X6 I0 A0 2.00 180.

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2
A1 B0 G1 A1 B0 P6 A0 2.00 180.
4 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT

SMALLSHEAR F 2

Al B0 G1 Al B0 P3 A0 2.00 120.

5 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE Al B0 G1 A67 B3 P1 A0 l.OO 730.

TOTAL TMU 1490.

OFG: 4 16-MAY-83

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION

## $\bigcirc$ Output to line-printer <Y or N> ? N

-			
FIT	9, 1) .W11  CUT SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT SHEETM STRAIGHT SECTION  NASSCO SHEETMETAL SHAPE 2  * 13 GAUGE GALV. SHEETMETAL  * 17'X14'X33'L STRAIGHT SECTION FITTER BEGINS AT WORKTABLE		)P
1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2  Al BO G1 A6 B0 P3 A0	2.00	220.
2	Al B0 G1 A6 B0 P3 A0 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al B0 Gl (Al B0 P3 C3 )Al B0 Pl A0 (16)	1.00	1160.
3	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
4	Al B0 Gl (A1 B0 PO F6 )A1 B0 P1 A0 (16) REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE F 2	1.00	1160.
5	Al B0 G1 Al B0 P3 A0 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT	2.00	120.
	Al B0 G1 A54 B0 P1 A0  TOTAL TM	1. 00 TU	570. 3230.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4720

#### File Description ? FORM LAP ENDS FOR STRAIGHT SECTION

## Quitput to line-printer <Y or N> ? N

FIT AT	9, 1) .W11 STRGH; FORM LAP ENDS FOR STRAIGHT SEC SHEETMETAL SHOP STRAIGHT SECTION NASSCO SHEETMETAL SHAPE 2 * 18 GAUGE GALV. SHEETMETAL * 17'X14'X33'L STRAIGHT SECTION FITTER BEGINS AT LAPOUT	TION WITH LAP	OUT (ROTARY DfG: 4 16-		
1	PLACE SHEETMETAL FROM CART AT L STEPS F 2 Al B0	APOUT TO LAP	OUT WITH 4	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2	GI AO DO	FJ AU	2.00	220.
4	Al BO	Gl Ml X16	IO AO	2.00	380.
3	PUSH AND GUIDE SHEETMETAL THROUF 2	JGH LAPOUT WI'	TH 2 STEPS		
	A3 BO	G1 Ml X0	I3 A0	2.00	160.
4	REPLACE SHEETMETAL FROM LAPOUT 4 STEPS F 2	TO CART AT L	APOUT WITH		
	Al BO	<b>02</b>	P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL2 FROM		TTSBURGH	4 00	0.0
	Al BO	G1 A6 B0	P1 A0	1.00	90.
			TOTAL	TMU	1070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

5790

#### File Description ? FORM PITTSBURGH ON STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39,	1)	
FTT	. W11	STRGHT.M64

FORM PITTSBURGH ON STRAIGHT SECTION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP OFG: 4 07-JUL-83

PER STRAIGHT SECTION NASSCO SHEETMETAL SHAPE 2

\* 13 GAUGE GALV. SHEETMETAL \* 17'X14'X33' L STRAIGHT SECTION

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4		
	A1 B0 G1 M1 X32 I0 A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 2 STEPS F 4		
	A3 B0 G1 M1 X0 I3 A0	4.00	320.
4	REPLACE SHEETHETAL2 FROM PITTSBURGH TO CART AT -PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	HOVE CART WITH SHEETMETAL FROM PITTSBURGH TO CORNICEBRAKE		

TOTAL TMU 2430.

A1 B0 G1 A24 B0 P1 A0 1.00 270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION Output to line-Printer <Y or N> ? N

(39, 1) FIT .W11

BEND SHEETMETAL FOR STRGHT WITH CORNICE BRAKE AT

SHEETMETAL SHOP PER STRAIGHT SECTION  NASSCO SHEETMETAL SHAPE 2  * 13 GAUGE GALV. SHEETMETAL  * 17'X14*X33'L STRAIGHT SECTION  * BEND UP SIDES ON STRAIGHT SECTION  *90 DEGREES FITTER BEGINS AT CORNICEBRAKE	OFG: 4 16-MAY-83
1 POSITION SHEETMETAL FROM CART AT CORNICEBRACE CORNICEBRAKE WITH 4 STEPS	PAKE TO
A1 B0 G1 A6 B0	) P6 A0 1.00 140.
2 OPERATE CORNICEBRAKE-LEVER PROCESS	
A1 B0 G1 M6 X42	2 IO AO 1.00 500.
3 POSITION SHEETMETAL FROM CORNICEBRAKE TO C	CORNICEBRAKE
A1 B0 G1 A1 B0	) F6 A0 1.00 90.
4 OPERATE CORNICEBRAKE-LEVER PROCESS	
A1 B0 G1 M6 X42	
5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CAR	RT Al-
CORNICEBRAKE WITH 4 STEPS A1 B0 G1 A6 B0	) P3 A0 1.00 110.
6 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAK	
WORKTABLE	CE 10
A1 B0 G1 A54 B3	3 P1 A0 1.00 600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10,160

1940.

TOTAL TMU

# File Description ? ASSEMBLE STRAIGHT SECTION Output to line-printer <Y or N> ? N

FIT	. W11 STRGHT  ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP  STRAIGHT SECTION OFG: 4 16-MAY-83  NASSCO SHEETMETAL SHAPE 2  * 18 GAUGE GALV. SHEETMETAL  * 17'X14'X33'L STRAIGHT SECTION  FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	
2	A1 B0 G1 A6 B0 P3 A0 2.00 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE WITH 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	220.
2	A1 B0 G1 (A1 B0 P0 F6) A1 B0 P1 A0 (4) 1.00 POSITION SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT	320.
5	WORKTABLE  A1 B0 G1 A1 B0 P6 A0 1.00	90.
4	PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12	
5	A1 B0 G1 A1 B0 P3 A0 12.00 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES	720.
_	USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F6) A1 B0 F1 A0 (12) 1.00	380.
5	FASTEN SHEETMETAL TO SHEEETMETAL AT WORKTABLE 4 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F10) A1 B0 P1 A0 (12) 1.00	1360.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	1300.
2	A1 B0 G1 (A1 B0 P0 F32) A1 B0 P1 A0 (20) 1.00	6640.
3	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00	100.
	TOTAL TMU	10330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

20,490

SHEET METAL SHAPE

18"x 11" x 34" LG. STRAIGHT SECTION

FAB	10 440	6 MIN.
MARK OUF	13,400	8 MIN.
WELO	31,590	19. MIN.
TOTAL TMU.	55,430	33 MIN.

54.20		nic senicride units		. PREPAREO 09/1	3/82 11:01 PAGE 3
Con Miletton Troub	Dince in the Bin of the Control of t	n Ending od-20-03	LOTTING A ACTUAL PHI	lie tall vale	EPS THE INPUTATION
1 vz-h360b 426	(清) [1] [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2		Hite Heec I	02/04/04	424-901-040-02/09/09
1 08-81868 448	CONFLETE THEFALEXTION VELESCO	BY NEED VICTORIAN NEED AND A STATE OF THE ST	o lin <mark>naes</mark> on mat <b>naes</b> (no 1). Todas o 10, oud dis not consider	1 . 85/65/52	\$25,05,05 02,05,05 02,05,05 02,05,05 02,05,05 02,05,05 02,05,05 02,05,05 02,05 02,05 02,05 02,05 02,05 02,05 02,05 03,05 04,05
1 va-81860 428		d 06/08/88 60/06/69	11/17/02 00/00/00 I	00/30/03	4243501-146 02/21/n3
J. Vel-11665 486				89/89/19	Edisore o the federale
den shouster f	ALAN IMME TO I TENER TO MENTERING	HREE HREE	linus hhee	#0/00/00 #0/\$0/80	ERASONEO ENSONEO
J VA-44007 446	Pundeli Tent Tent Tent Pent Heart di	I HARE NAME	NAME OF THE PARTY	62/06/09	2842841381 03/02/EB
# VE-914 # 10 428	PURENABED I YEAR TEP TENNS FURENABED I YEAR TEP TENNS FURENABER	NIEC NREC	HARC NATE	00/00/00	424-991-140- 03/10/63 03/10/63
Va-nicht kee	HERE SEERS AND SHALLS INDUSTRIBLE		MARK MINER 1	89/20/89	4 44 861 1928 5 03/24/20 20 124/20 20 20 20 20 20 20 20 20 20 20 20 20 2
bsk doniu sv L	ACOUNT HOUSE HAN, FOR THE STEEL		linke hune i	93/24/93	EN LANE ESTABLES
J verdiete xae	Alia edanimbandangangana	M P NACE	MARKET SO NAMES OF SAME	89/86/89	EUNESKE EONESKE
	TROUBLE OF FUEN ARM HIS SERVICE SERVICES	•	HAT THE RESERVE THE STATE OF TH		

#### File Description ? HARK OUT SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

	, 1) .W11 STRGHT		
	MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHE	ETMETAL	
SHOI PER	STRAIGHT SECTION OFG: 4 24-M4' NASSCO SHEETMETAL SHAPE 2 * 11 GAUGE GALV. SHEETMETAL * 18'X11'X34'L STRAIGHT SECTION * HARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	Y-83	
1	MEASURE DIMENSIONS ON SHEEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 4 (4 5 6 7 )		
2	A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (4) MARK DIMENSIONS AN SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7)	1.00	1400.
3	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (7) MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	390.
4	A1 B0 G1 A16 B0 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS PF 3 ( 4 5 6 7 )	1.00	190.
5	A1 B0 G1 (A1 B0 P1 M32) A1 B0 P1 A0 (3)  MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING AWL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 5 (4 5 6 7)	1.00	1060.
6	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (5) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMET AL AT WORKTABLE WITH 2 STEPS F 3	1.00	290.
7	A1 B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE	3.00	330.
8	PF 3 (4 5 6 7) Al BO Gl (Al RO Pl A6) R16 Al BO Pl A0 (3) MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	440.
۵	A1 B0 G1 A1 B0 P1 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	190.
9	WORKTABLE F 3  Al B0 G1 Al B0 P6 A0	3.00	270.
10	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	3.00	270.
11	A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	1.00	580.
12	A1 B0 G1 A3 B0 P6 A0 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	440.

13	A1 B0 G1 (A1 B0 P1 R6) A1 B0 P1 A0 (4) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	360.
14	WORKTABLE WITH 2 STEPS AND ASIDE F 2 A1 B0 G1 A3 B0 P6 A0  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 3 STEPS AND ASIDE PF 2 ( 4 5	2.00	220.
15	67) A1 B0 G1 (A1 B0 P0 A6) F3 A1 B0 P1 A0 (2) MOUE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 POINTS	1.00	210.
16	A1 B0 G1 A1 B0 P1 A0 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS AND ASIDE F 2	1.00	40.
17	A1 B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETHETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE WITH 2 STEPS F 2	2.00	220.
18	A1 B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	2.00	160.
19	A1 WORKTABLE WITH 2 SIEPS F 4  A1 B0 G1 A3 B0 P6 A0  MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF	4.00	440.
20	4 ( 4 5 6 7) Al BO Gl (Al BO Pl R6) Al BO Pl AO (4) FITTER MOVE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE	1.00	360.
	WITH 9 STEPS A1 B0 G1 A16 B0 P1 A0	1.00	190.
	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 9 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (3)	1.00	580.
22	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND. ASIDE PF 26 ( 4 5 6 7 )		
23	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (26) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	1340.
24	A1 B0 G1 (A1 B0 P1 R3) A1 B0 P1 A0 (52) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	2640.
25	WITH 4 STEPS F 2  A1 B0 G1 A6 B0 F3 A0  MOVE CART FROM WORKTABLE TO 14FT. SHEAR		
	A1 B0 G1 A81 B0 P1 A0	1.00	840.
	TOTAL TM	U	13400.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION
Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 STRGHT-

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. SHEAR AT SHEETMETAL SHOP

PER STRAIGHT SECTION OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 2  * 11 GAUGE GALV. SHEETMETAL  * 18'X11'X34' STRAIGHT SECTION  * SHEAR TOP 3 BOTTOM PIECES FOR  t STRAIGHT SECTION  FITTER BEGINS AT 14FT. SHEAR	
1 POSITION SHEETMETAL FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P6 A0	280.
2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS	
A1 B0 G1 M1 X3 I0 A0 1000	60.
3 POSITION SHEETMETAL FROM 14FT. SHEAR TO 14FT. SHEAR WITH 2 STEPS F 6	
A1 B0 G1 A3 B0 P6 A0 6.00	660.
4 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 6	
A1 B0 G1 M1 X3 I0 A0 6.00	360.
5 REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT	
14FT. SHEAR WITH 12 STEPS F 2	
A1 B0 G1 A24 B0 P3 A0 2.00	580.
6 MOUE CART FROM 14FT. SHEAR TO WORKTABLE	
A1 B0 G1 A81 B3 P1 A0 1.00	870.

TOTAL TMU

2810.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## File Description ? CUT SHEETMETAL FOR STRAIGHT SECTION Output to line-printer <Y or N> ? N

(39, 1)STRGHT FIT .W11 CUT SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL SHOP PER STRAIGHT SECTION OFG: 4 24-MAY-83 NASSCO SHEETMETAL SHAPE 2 \* 11 GAUGE GALV. SHEETMETAL \* 18'X11'X34' STRAIGHT SECTION \* CUT CORNERS FOR STRAIGHT SECTION FITTER BEGINS AT WORKTABLE 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 F3 A0 2.00 220 . 2 MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE A96 B0 G1 A96 B3 P1 A0 1.00 1970. 3 OPERATE SABER-SAW AT WORKTABLE PROCESS A1 B0 G1 M6 X67 I0 A0 1.00 750. 4 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 2 STEPS A1 B0 G1 A3 B0 Α0 1.00 80. 5 OPERATE SABER-SAW AT WORKTABLE PROCESS 1.00 750 • A1 B0 G1 M6 X67 IO AO 6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 2.00 220. G1 A6 B0 F3 Α0 A1 B0 7 MOUE CART FROM WORKTABLE TO 14FT HYDROPRESSBRAKE A1 B0 G1 A96 B0 P1 Α0 1.06 990.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

1790

4980.

TOTAL TMU

#### File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 1)

STRGHT 3 FIT .W11

BEND SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP

PER STRAIGHT SECTION
NASSCO SHEETMETAL SHAPE 2 OFG: 4 24-MAY-83

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'Xll'X34' STRAIGHT SECTION
- \* BEND SIDES IF STRAIGHT SECTION
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD ....STRGHT.M94

FITTER BEGINS AT 14FT. HYDROFRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FT HYDROPRESSBRAKE		
	TO 14FT HYBROPRESSBRAKE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P6 A0	2.00	220.
2	PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2		
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
3	POSITION SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO		
	14FT HYBROFRESSBRAKE WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 F6 A0		220.
1	PUSH 14FT HYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2	2.00	220.
4			
	A1 B0 G1 M1 X24 I0 A0	2.00	540.
5	REPLACE SHEETMETAL FROM 14FT HYDROFRESSBRAKE TO CART AT		
	14FT HYDROPRESSBRAKE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM 14FT HYDROFRESSBRAKE TO WORKTABLE		110.
Ü		1 00	1000
	Al B0 G1 A96 B3 P1 A0	1.00	1020.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

10,440

2650.

TOTAL TMU

#### File Description ? WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39, 101) WELD .WO1 STRGHT.M94 WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETMETAN WELDING BOOTH PER STRAIGHT SECTION OFG: 4 19-JU WELDING NASSCO SHEETMETAL SHAPE 2 * 11 GAUGE GALV. SHEETMETAL * 18'X11'X34'L STRAIGHT SECTION * WELDING DONE IN WELD AREA BOOTH * WELDOR PERFORMS THE WORK * FITTER TRANSPORTS SHEETMETAL FITTER BEGINS AT WORKTABLE		
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
A1 B0 G1 A6 B0 P3 A0 2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
A1 B0 G1 A131 B3 P1 A0 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
A1 B0 G1 A6 B0 P3 A0 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 I0 A32  5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370.
WELDMACHINES TO ON AT WELDMACHINES Al B0 G1 M3 X0 I0 Al	1.00	60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2 A3 B3 G1 A1 B0 P6 A0	2.00	280.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
A1 B0 G1 M1 X10 I0 A0 8 WELDROD FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 15	2.00	260.
A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 15	15.00	1050.
A1 B0 G1 M1 X0 I0 A1 10 WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO	15.00	600.
SHEETMETAL ASSEMBLY AT WELDTABLE F 15 A1 B0 G1 A1 B0 P6 A0	15.00	1350.
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 1 1	11 00	10010
A1 B0 G1 M6 X173 IO A0 12 push weldhood from DOWN at weldor to up at weldor f 15	11.00	19910.
A1 B0 G1 M1 X0 I0 A1 13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND	15.00	
ASIDE PF 6 ( 4 5 6 7 )  Al BO G1 (Al BO PO L16) Al BO F1 AO (6)  14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10	1.00	1060.
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 22 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 C10) A1 B0 P1 A0 (22)	1.00	2680.
AT DO GT (AT DO FT CTO) AT DO FT AO (22)	<b>±.</b> 00	∠000.

# 15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2 Al B0 G1 A6 B0 F3 A0 2.00 220. 16 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE Al B0 G1 A131B0 P1 A0 1.00 1340. TOTAL TMU 31590.

File Description ? WELD STRAIGHT SECTION output to line-printer <Y or N>. ?

# 2

SHEET METAL SHAPE

5 x 6 x 48" LG. STEAIGHT SECTION

FAB	19110	11 MIN.	
MARK OUT	20900	12 MIN.	
TOTAL	40010 .	24 MIN.	

#### File Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

WORKTABLE AND HOLD

Outpi	ut to line-printer <y n="" or=""> ? N</y>		
FIT	, 31: 	ETMETAL	
SHOP PER	STRAIGHT  A REPRESENTATIVE STRAIGHT SECTION  * 20 GAUGE GALV. SHEETMETAL  * DIMENSIONS:5'X6'X48'L  * NO TEMPLATE USED-LAYOUT ONLY (2 PIECES)  * STRAIGHT VENT = STRGHT  FITTER BEGINS AT WORKTABLE	?-83	
	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND HOLD  Al BO G1 Al BO F1 M32 AO BO PO AO MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT	1.00	360.
	WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (3)  MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF  WORKTABLE WITH 9 STEPS	1.00	190.
4	Al B0 G1 Al& B0 F1 A0 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING	1.00	190.
5	STEEL-TAPE AT WORKTABLE AND HOLD  Al B0 G1 Al B0 F1 M32 A0 B0 P0 A0  MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND	1.00	360.
6	ASIDE PF 3 ( 4 5 6 7 )  Al BO Gl . (Al BO Pl R3 )Al BO Pl AO (3)  MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING  STEEL-TAPE AT WORKTABLE AND HOLD	1.00	190.
7	Al BO G1 Al BO F1 M32 AO BO FO AO MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE	1.00	360.
8	AT WORKTABLE AND ASIDE WITH 3 STEPS PF 8 ( 4 5 6 7 ) Al BO G1 A1 BO F1 R3 )A1 BO F1 A0 (B) MOVE STEEL-TAPE FROM WORKTABLE TO WORKTABLE 3 STEPS AND	1.00	440.
9	HOLD  Al B0 G1 A6 B0 F1 A0  MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING	1.00	90.
10	STEEL-TAPE AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 F1 M32 A1 B0 P1 A0 MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND	1.00	380.
11	ASIDE PF 8 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3 )Al O Pl AO (8)  POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	440.
12	WORKTABLE AND HOLD F 5  Al B0 G1 Al B0 F6 AO  MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL	5.00	450.
13	AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )  Al BO G1 (A1 BO F1 R16 )A1 BO P1 A0 (5)  MOVE STRAIGHT-EDGE FROM WORKTABLE TO OTHER SIDE OF  WORKTABLE AND HOLD	1.00	940.

A1	в0	G1	Al	в0	Р1	A0	1.00

15	(A1 B0 G1 A1 B0 P6 A0 ) MARK LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL	1.00	450.
16	AND ASIDE PF 5 ( 4 5 6 7 )  Al B0 G1 (A1 B0 F1 R16 )A1 B0 P1 A0 (5)  POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	940.
	WORKTABLE AND ASIDE PF 8 ( 4 5 6 )  Al BO G1 (Al BO P6 )AO (8)  FASTEN CPUNCH ON SHEETMETAL AT WORKTABLE 1 STRIKE USING	1.00	580.
	HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F3 )A1 BO F1 AO (8)	1.00	360.
18	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 )  Al B0 G1 (A1 B0 P3 )A0 (12)	1.00	500.
19	MARK LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
20	Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (12) MOUE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	1000.
21	Al B0 G1 Al6.B0 F1 A0 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	190.
22	WORKTABLE AND ASIDE PF 4 ( 4 5 6 )  Al B0 G1 (A1 B0 P6 )A0 (4)  FASTEN CPUNCH ON SHEETMETAL AT WORKTABLE 1 STRIKE USING	1.00	300.
2 2	HAMMER AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (Al BO PO F3 )Al BO P1 AO (4)	1.00	200 .
23	PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )		
24	Al B0 G1 (A1 B0 P3 )A0 (4) MARK SHEETMETAL WITH CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7	1.00	180.
	Al B0 G1 (A1 B0 P1 R6 )A1 B0 F1 A0 (4) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7)	1.00	360.
26	Al B0 Gl (A1 B0 P1 R3 )A1 B0 P1 A0 (25) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1290.
0.77	WORKTABLE 8 DIGITS USING BLACKPEN AND HOLD F 8  Al BO G1 Al BO P1 R32 AO BO PO AO	8.00	2880.
	MOVE BLACKPEN FROM FITTER TO WORKTABLE  -A1 B0 G1 A1 B0 P1 A0  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	40.
	USING BLACKPEN AND ASIDE PF 35 ( 4 5 6 7 ) Al BO G1 (A1 HO P1 R3 )A1 B0 F1 A0 (35)	1.00	1790.
29	MOVE REDPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS  Al B0 G1 Al6 B0 F1 A0	1 00	190.
30	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7)	1.00	190.
31	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (30) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	1540.
32	ASIDE PF 20 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (20)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 35 ( 4 5 6 7	1.00	1040.
	Al B0 G1 (A1 B0 P1 R3 )Al B0 P1 A0 (35)	1.00	1790.

TOTAL TMU

:pe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? SHEAR OUTLINES OF STRAIGHT PIE&E

#### Dutput to line-printer <Y or N> ? N\

%Invalid command.

Output to line-printer <Y or N> ? N

(39, 3)

.W11 STRGHT.MO3

SHEAR SHEETMETAL OUTLINES FOR STRAIGHT (#2) PIECE WITH SHEAR AT SHEETMETAL SHOP

DFG: 4 07-JUL-83 PER STRAIGHT

NASSCO SHEETMETAL PART #2

- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 5'X6'X48'L
- \* STRAIGHT VENT = STRGHT \* SHEAR IS SMALL 3 FT, SHEAR FITTER BEGINS AT SMALLSHEAR

1	POSITION	4X8	SHE	ΕT	'METAL	FR	MO	CART	AT	SMA	LLSHEAR	TO
	SMALLSHE	AR W	ITH	4	STEPS	F	2					

	SHADDSHEAK WITH 4 SIELS I									
		Al	В0	G1	Аб	в0	Р6	A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSH	EAR	PRO	CESS						
		Al	В0	G1	Ml	хб	IO	A0	1.00	90.
3	POSITION SHEETMETAL FROM 4 STEPS	SMA	LLSH	IEAR	TO	SMALI	LSHE	AR WITH		
		Al	в0	G1	Аб	в0	Р6	A0	1.00	140.
4	PUSH FOOTPEDAL AT SMALLSH	EAR	PRO	CESS	F 2					
_		Al		G1	Ml	Хб	IO	A0	2.00	180.
5	PLACE SHEETMETAL FROM SMA	ALLS	HEAR	OT S	CAR	Г АТ	SMA:	LLSHEAR		
	WITH 4 STEPS F 2									
		Al	в0	G1	Аб	в0	Р3	A0	2.00	220.
6	MOUE CART FROM SMALLSHEAR	TO	WORK	KTABI	LΕ					
	1	Al	В0	G1	A67	В3	P1	A0	1.00	730.

TOTAL TMU 1640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? CUT CORNERS ON STRAIGHT PIECE

#### Dutput to line-printer <Y or N> ? N

( 39, 3) FIT .W11 STRGHT.MO4		
CUT SHEETMETAL FOR STRAIGHT (#2) PIECE CORNERS WITH	SNIPS AT	
SHEETMETAL SHOP		
	07-JUL-83	
NASSCO SHEETMETAL PART # 2 * 20 GAUGE GALV. SHEETMETAL		
* DIMENSIONS: 5'X6'X48'L		
* STRAIGHT VENT = STRGHT		
FITTER BEGINS AT WORKTABLE		
1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABL WITH 4 STEPS F 2	E	
Al BO G1 A6 BO P3 A0	2.00	220.
2 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
Al BO G1 (A1 BO P3 C3 )A1 BO P1 A0	(12) 1.00	380.
3 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES		
USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7		000
Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0		880 •
4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
Al BO G1 A6 BO P3 A0	2.00	220 •
5 MOVE CART FROM WORKTABLE TO LAPOUT MACHINE	2.00	220 •
A1 B0 G1 A54 B0 P1 Ad	1.00	570 •

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4410

2770 .

TOTAL TMU

#### File Description ? FORM LAP OUT FOR STRAIGHT PIECE

#### Qutput to line-printer <Y or N> ? N

39, 3)
FIT .wo4 STRGHT.MO5

FORM LAP OUT END FOR STRAIGHT PIECE WITH LAP OUT MACHINE AT SHEETMETAL SHOP

PER STRAIGHT DFG: 4 04-MAR-83

- A REPRESENTATIVE STRAIGHT PIECE
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 5'X6'X48'L
- \* STRAIGHT VENT = STRGHT

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAI	POUT	TO	LAPO	TUC	MACHINE	
	WITH	4 STEPS F 2	)									
				Al	. В	0	G1	Аб	В0	P3	A0	2.0

Al B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 2

Al B0 G1 Ml X16 IO A0 2.00 380.

3 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH

4 STEPS

Al B0 G1 A6 B0 P3 A0 1.00 110.
4 MOUE CART FROM LAPOUT TO PITTSBURGH
Al B0 G1 A6 B0 P1 A0 1.00 90.

TOTAL TMU 800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H fop help> ?

5210

Please input file <STRGHT.M06> ?

## ile Description ? FORM PITTSBURGH ON STRAIGHT PIECE

OutPut to line-Printer <yor N> ? N

(39, 3)

.wo4 FITStrght.M06

FORM SHEETMETAL FOR STRAIGHT PIECE WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

DFG: 4 04-MAR-83 PER STRAIGHT

- A REPRESENTATIVE STRAIGHT PIECE
- \* 20 GAUGE GALV, SHEETMETAL \* DIMENSIONS: 5'X6'X48'L
- \* STRAIGHT VENT = STRGHT
- \* PITTSBURGH JOINT MACHINE (STEELERS)

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
2	PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH AT PITTSBURGH PROCESS F 2		
	Al BO G1 Ml X32 IO AO	2.00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH AT		
	PITTSBURGH F 4		
	Al BO G1 Ml XO I3 AO	4.00	240.
4	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	11o.
5	MOUE CART FROM PITTSBURGH TO CORNICEBRAKE		
	Al BO G1 A24 <b>BO</b> P1 A0	1.00	270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>?

6640

1430.

TOTAL TMU

Please input file <STRGHT.M07> ?

## le Description ? BEND STRAIGHT PIECE

OutPut to line-printer <Y or N> ? N

( 39, 3)

FIT .wo4 STRGHT.MO7

BEND SHEETMETAL FOR STRAIGHT PIECE WITH CORNICE BRAKE AT

SHEETMETAL SHOP

PER STRAIGHT DFG: 4 04-MAR-83

- A REPRESENTATIVE STRAIGHT PIECE
- I 20 GAUGE GALV, SHEETMETAL
- \* DIMENSIONS: 5'X6'X48'L
- \* STRAIGHT VENT = STRGHT
- \* CORNICE BRAKE BENDS WITH LEAF
- \* CORNICE BRAKE HAND OPERATED

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS		
	Al BO G1 A6 BO P6 A0	1 00	140.
		1.00	140.
2	OPERATE CORNICEBRAKE-LEVER AT CORNICEBRAKE PROCESS F 2		
	Al BO G1 M6 X42 IO AO	2.00	1000.
3	PLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT		
	CORNICEBRAKE WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
4	MOVE CART FROM CORNICEBRAKE TO WORKTABLE	1.00	110.
	Δ1 R0 G1 Δ54 R3 D1 Δ0	1 00	600

TOTAL TMU 1850.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8 4 9 0

#### Dutput to line-printer <Y or N> ? N

FIT	9, 3) .W11 STRGHT.M08  ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP STRAIGHT DFG: 4 07-JULY NASSCO SHEETMETAL SHAPE 2 * 20 GAUGE GALV. SHEETMETAL * DIMENSIONS:5'X6'X48' LG * STRAIGHT VENT=STRGHT FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE	2.00	220.
3	Al BO G1 Al BO P6 AO POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3	1.00	90.
4		8.00	720.
5	Al BO G1 (A1 BO PO F6 )A1 BO P1 AO (8) FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	1.00	600.
	ASIDE FF 3 ( 4 3 0 7 )  Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (8)  6 FASTEN SHEETMETAL [TOP] TO SHEETMETAL [BOTTOM] AT  WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND  ASIDE PF 25 ( 4 5 6 7 )	1.00	600.
	Al BO G1 (A1 BO PO F32 )A1 BO P1 AO (25)	1.00	8 2 9 0 .
7	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 PO T10 A0 B0 PO A0	1.00	100.

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

TOTAL TMU 10620.

SHEET METAL SHAPE # 2

# 19"X10"X6-6"16 STRAIGHT SECTION

_ FAB	32740	20 MIN.
MARK out	16/70	10 MIN.
FOTAL TMU.	48,910	29 MIN.

#### tile Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,3) FIT •W09 STRGHT  MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHE SHOP PER STRAIGHT SECTION= OFG: 4 07-AP  NASSCO SHEETMETAL SHAPE =2  * HULL 414  * DRAWING 501-062  * V2-1099  * VS-7620  * 18 GAUGE GALV. SHEETMETAL  * 19'XAO'X6'6'L STRAIGHT SECTION  * MARK OUT TOP & BOTTOM WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE		
1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 3 STEPS		
Al B0 G1 A1 B0 M32 Al B0 P1 A0 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	380.
USING AWL AND ASIDE  Al B0 G1 Al B0 P1 R3 Al B0 P1 A0  3 MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF	1.00	90.
WORKTABLE WITH 9 STEPS  Al B0 G1 A16 B0 P1 A0	1.00	190.
4 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 (4 5 6 7)		
Al B0 G1 (Al B0 P1 M32 )A1 B0 P1 A0 (3) 5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1060.
USING AWL AND ASIDE PF 10 ( 4 5 6 7 )  Al BO G1 (Al BO P1 R3 )Al BO P1 AO (10)	1.00	540.
6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WOKTABLE WITH 3 STEPS F 3  Al B0 G1 A6 B0 P6 A0	3.00	420.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 3 (4 5 6 7 )	3.00	420.
Al B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (3)  3 MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	440 •
Al B0 G1 A16 B0 P1 A0 9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	190.
WORKTABLE F 2 Al B0 G1 Al B0 P6 A0	2.00	130.
10 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL WITH 3 STEPS AND ASIDE PF 2 (4 5 6 7 )		
Al B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (2) 11 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	360.
AT WORKTABLE WITH 3 STEPS F 6 Al B0 G1 A6 B0 P6 A0 12 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2	6.00	840.

	DIGITS USING AWL AND ASIDE PF 6 (4 5 6 7 ) Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (6)	1.00	520.
13	MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
14	Al B0 G1 Al6 B0 P1 A0 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 6	1.00	190.
15	Al B0 G1 A6 B0 P6 A0 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2	6.00	840.
16	DIGITS USING AWL AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R6 )A1 BO P1 AO (6) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	520.
17	WORKTABLE WITH 4 STEPS F 6  Al B0 G1 A6 B0 P6 A0  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	6.00	840.
	HAMMER AND ASIDE PF 6 (4 5 6 7 ) Al B0 G1 (A1 B0 P0 F3 )A1 B0 Pl A0 (6)	1.00	280.
18	MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS  Al B0 G1 Al6 B0 P1 A0	1.00	190.
19	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE		
20	Al B0 G1 Al B0 PO F3 Al B0 P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND HOLD PF 7 (4 5 6 7 )	1.00	80.
21	Al B0 G1 (A1 B0 P1 R16 )A0 B0 PO A0 (7) MOVE REDPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	1280.
22	Al B0 G1 Al6 B0 P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	190.
3	USING REDPEN AT WORKTABLE AND ASIDE PF 7 (4 5 6 7)  Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (7)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1300.
	WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 29 ( $4\ 5$ 6 7 )		4.450
24	Al B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (29) MOUE BLACKPEN FROM FITTER TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	1470.
25	Al B0 G1 Al6 B0 P1 A0 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1901
	WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 29 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (29)	1.00	1490.
26	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 (4 5 6 7)		
27	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	1290.
28	Al B0 G1 A6 B0 P3 A0 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1.00	110.
20	Al BO G1 A67 BO P1 A0	1.00	700.
	TOTAL TI	MU	16170.

TOTAL TMU

2150.

Please input file <STRGHT.M41> ?

#### le Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(	3	9	,	3	)

FIT •W09 STRGHT

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8 FT. SHEAR AT SHEETHETAL SHOP

PER STRAIGHT OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2

- \* HULL 414
- \* DRAWING 501-062V2-1099
- \* V6-7620
- \* 18 GAUGE GALV. SHEETMETAL
- \* 19'XlO'X6'6'L STRAIGHT SECTION
- \* 2 MEN REQUIRED TO MOVE&POSITION METAL

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO		
	SMALLSHEAR WITH 4 STEPS F 2	2 00	280.
2	Al B0 G1 A6 B0 P6 A0 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	2.00	280.
4		2 00	100
2	Al BO G1 Ml X6 IO AO	2.00	180.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 4	1 00	260
4	A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	0 00	100
_	Al BO G1 Ml X6 IO AO	2.00	180.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 10 STEPS F 2		
	Al BO G1 Al6 BO P3 AO	2.00	420.
6	HOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		
	Al B0 G1 A67 B3 P1 A0	1.00	730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# File Description ? CUT LAP CORNERS ON STRAIGHT SECTION Output to line-printer <Y or N) ? N

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING	2.00	220.
3	SNIPS AT WORKTABLE AND ASIDE F 6 Al B0 G1 Al B0 P3 C3 Al B0 P1 A0 MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE	6.00	660.
	WITH 4 STEPS Al B0 G1 A6 B0 P1 A0	1.00	90.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 6		
5	Al B0 G1 Al B0 P3 C3 Al B0 P1 A0 FASTEN SHEETMETAL [CORNERS] TO WORKTABLE 3 STRIKES	6.00	660.
6	USING HAMMER AND HOLD PF 6 (4 5 6 7 )  Al B0 G1 (A1 B0 PO F6 )A0 B0 P0 A0 (6)  MOVE HAMMER FROM FITTER TO OTHER SIDE OF WORKTABLE WITH	1.00	440.
_	4 STEPS AND ASIDE  Al B0 G1 A6 B0 P1 A0	1.00	90.
	FASTEN SHEETMETAL [CORNERS] AT WORKTABLE 3 STRIKES USING HAMMER AND HOLD PF 6 (4 5 6 7) 1 Al BO G1 (A1 (A1 PO F6 )AO BO PO AO (6) REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE	1.00	440.
	WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220.
9	MOVE CART FROM WORKTABLE TO LAPOUT Al B0 G1 A54 B0 P1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

TOTAL TMU

3390.

Please input file <STRGHT.M43> ?

#### File Description ? FORM LAP END OFFSET ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39'3) FIT •W09

FORM LAP END OFFSET FOR STRAIGHT SECTION WITH LAPOUT MACHINE AT

SHEETMETAL SHOP
PER STRAIGHT OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2

\* HULL 414

\* DRAWING 501-062

\* V2-1099

\*0 V6-7620

\* 18 GAUGE GALV. SHEETMETAL

\*19'X10'6'L STRAIGHT SECTION

\* 2 MEN REQUIRED TO HOLD SHEETMETAL

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4		
	STEPS F 2	2.00	220 .
_	Al BO G1 A6 EO P3 A0	2.00	220 •
2	PUSH LAPOUT-SWITCH AT LAPOUT PROCESS F 4	4 00	760
_	Al BO G1 Ml X16 IO AO	4.00	760.
3	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH		
	4 STEPS F 4	4 00	4.40
	Al B0 G1 A6 B0 P3 A0	4.00	440.
4	MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO PITTSBURGH	1 00	0.0
	A1 E0 G1 A6 B0 F1 A0	1.00	90.

TOTAL TMU 1510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <STRGHT.M44> ?

## 1 :le Description ? FORM PITTSBURGH LOCKS ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,3)

FIT •W09

STRGHT

FORM PITTSBURGH LOCKS ON **STRAIGHT SEC**TION WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE =2

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7620
- \* 18 GAUGE GALV. SHEETMETAL
- \*19'XlO'X6'6' L STRAIGHT SECTION
- \* 2 MEN REQUIRED TO POSITION & MOVE METAL FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 4		
	Al B0 G1 A6 B0 P3 A0	4.00	440.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	4.00	1400.
2	Al B0 G1 Ml X32 IO A0 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4	4.00	1400.
3	STEPS F 8		
	A6 B0 G1 Ml X0 I3 A0	8.00	880.
4	REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT		
	PITTSBURGH WITH 4 STEPS F 4		
	Al B0 G1 A6 B0 P3 A0	4.00	440.
5	MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO		
	CORNICEBRAKE	1 00	0.00
	Al B0 G1 A24 B0 P1 A0	1.00	270.

Type D, EM, CT, EW, EX, L, LD, LS, M, , W <or H for help> ?

3430.

TOTAL TMU

OFG: 4 07-APR-83

Please input file <STRGHT.M45> ?

File Description ? BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,3) FIT •W( STRGHT •W09

BEND UP 90 DEGREE SIDES ON STRAIGHT SECTION WITH CORNICE BRAKE AT

SHEETMETAL SHOP PER STRAIGHT

NASSCO SHEETMETAL SHAPE #2

\* HULL 414

\* DRAWING 501-062

\* V2-1099

V6-7620

\* 18 GAUGE GALV. SHEETMETAL

\* 19'X10'X6'6'L STRAIGHT SECTION

\*( 2 MEN REQUIRED TO POSITION & MOVE METAL

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO	)		
	CORNICEBRAKE WITH 4 STEPS F 2  A1 B0 G1 A6 B0 P6	A0	2.00	280.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2 A1 B0 G1 M6 X42 IO	Α0	2.00	1000.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICE		2.00	1000.
	F 2 A1 B0 G1 A1 B0 P6	ΑO	2.00	180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 2	110		
5	Al BO G1 M6 X42 IO REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT	A0	2.00	1000.
J	CORNICEBRAKE WITH 4 STEPS F 2			
6	A1 B0 G1 A6 P3 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO	A0	2.00	220.
U	WORKTABLE			
	A1 B0 G1 A54 B3 P1	A0	1.00	600.
		TOTAL TMU		3280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

13760

File Description ? ASSEMBLE TOP TO BOTTOM OF STRAIGHT SECTION output to line-printer <Y or N> ? N

(39,3) FIT .W11 STRGHT.M46		
ASSEMBLE TOP TO BOTTOM ON STRAIGHT SECTION WITH HAMMER SHEETMETAL SHOP	AT	
PER STRAIGHT OFG: 4 08-3	JUL-83	
NASSCO SHEETMETAL SHAPE #2 * HULL 414		
* DRAWING 501-062 * V2-1099		
* V6-7620		
* 18 GAUGE GALV. SHEETMETAL * 19'X10'X6'6'L STRAIGHT SECTION		
* LAY SCRAPMETAL ACROSS BOTTOM TO HOLD TOP FITTER BEGINS AT WORKTABLE		
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE		
WITH 4 STEPS F 2		
A1 B0 G1 A6 B0 P3 A0 2 FASTEN [FLATTEN] CORNERS ON SHEETMETAL WITH 3 STEPS AT	2.00	220.
WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (4567)		
A6 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (12	1.00	9301.
3 POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS		
Al B0 G1 A6 B0 P6 A0 4 POSITION SHEETMETAL [SCRAP] FROM WORKTABLE TO	1.00	140.
SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2  Al BO 61 A6 B0 P6 A0	2.00	280.
5 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	2.00	200.
WORKTABLE F 7 Al B0 G1 Al B0 P6 A0	7.00	630.
6 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 7 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 PO F6 )A1 B0 F1 A0 (7 7 FASTEN SHEETMETAL TO SHEETMETAL 4 STRIKES USING HAMMER	) 1.00	530.
AND ASIDE F 7 (4567)	\ 1.00	010
Al B0 G1 (A1 B0 PO F10 )A1 B0 F1 A0 (7 8 REPLACE SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE		810.
TO WORKTABLE WITH 3 STEPS Al B0 G1 A6 B0 P3 A0	1.00	110.
9 MOVE SETTINGTOOL TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4567)		
Al B0 G1 (A6 B0 P1 A0 ) 10 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES	1.00	160.
USING HAMMER AND ASIDE PF 7 (4 5 6 7 )	\ 1.00	F20
Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (7 11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES	) 1.00	530.
USING HAMMER AND ASIDE PF 7 (4567) Al B0 G1 (A1 B0 PO F10 )A1 B0 P1 A0 (7	1.00	810.
12 MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS AND ASIDE PF 2 (4 5 6 7)		
Al B0 61 (A6 B0 P1 A0 )		160.
13 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES		

USING HAMMER AT WORKTABLE AND ASIDE PF 41 ( 4 5 6 7 )

(A1 B0 P0 F32 A1 B0 F1 A0 (41) 1.00 13570. Al BO G1

14 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

AO BO GO AO BO PO T10 AO BO PO AO 1.00 100.

> TOTAL TMU 18980.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

32740

SHEET METAL SHAPE Z

## 20"x 14"x 48"LG. STEAIGHT SECTION

FAB	10370	6 MIN	
MARK out	14450	9 MIN.	<u> </u>
WELD	44160	26 MIN.	
Y0 74L	68,980	41 MIN	

### File Description ? out section

#### Jutsut to line-printer <Y or N> ? N

	39,1)		
FIT	•W11 STRGHT.M70 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHE	ד ע ההינוז/וויהים י	
SHO		FIMETAL	
	STRAIGHT SECTION OFG: 4 24-MA	Y-83	
	NASSCO SHEETMETAL SHAPE 2		
	* 11 GAUGE GALV. SHEETMETAL		
	* 20'X14'X48'L STRAIGHT SECTION		
	* MARK OUT WITHOUT TEMPLATE		
	FITTER BEGINS AT WORKTABLE		
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING		
	STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE F 4		
	Al BO G1 Al BO P1 A6 M32 Al BO P1 A0	4.00	1760.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE F 7	7 00	1050
2	Al B0 G1 Al B0 P1 A6 R3 Al B0 P1 A0 MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF	7.00	1050.
3	WORKTABLE WITH 9 STEPS		
	Al BO G1 Al6 BO P1 AO	1.00	190.
4	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING		
	STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 (		
	4567)		<b>C</b> 00
	Al B0 G1 (A1 B0 P1 A6 )M32A1 B0 P1 A0 (3) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1 . 0 0	600.
	USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 5 ( 4		
	5 6 7 )		
	Al BO G1 (Al 30 P1 A6 )R3 Al BO P1 A0 (5)	1.00	470.
6	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 3 STEPS F 3  Al B0 G1 A6 B0 P6 A0	2 00	400
7	Al B0 G1 A6 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE	3.00	420.
,	5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE		
	PF3 (4567)		
	Al BO G1 (A1 BO P1 A6 )R16A1 BO P1 AO (3)	1.00	440.
8	MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF		
	WORKTABLE WITH 9 STEPS Al R0 G1 Al6 B0 F1 A0	1.00	190.
9	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	190.
-	WORKTABLE WITH 3 STEPS F 3		
	Al B0 G1 A6 B0 P6 A0	3.00	420.
10	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS		
	USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	1 00	Ε00
11	Al B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (3) POSITION- CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	580.
11	AT WORKTABLE F 4		
	Al BO G1 Al BO P6 AO	4.00	360.
12	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2		
	DIGITS USING AWL AND ASIDE PF 4 ( 4 5 6 7 )	1 00	260
12	Al B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (4) MOVE CORNER TEMPLATE TO OTHER SIDE OF WORKTABLE WITH 4	1.00	360.
13	STEPS		
	Al B0 G1 A6 B0 F1 A0	1.00	90.

14 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL		
AT WORKTABLE WITH 2 STEPS F 4 Al B0 G1 A3 B0 P6 A0	4.00	440.
15 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7		
Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (4) 6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	360.
WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P6 A0 ) 17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	1.00	160.
HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) AL BO G1 (A1 B0 PO F3 )A1 B0 P1 A0 (4)	1.00	200.
18 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1 00	100
Al B0 G1 Al6 B0 P1 A0 19 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	190.
Al B0 G1 Al B0 P6 A0 20 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	2.00	180.
HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (2)	1.00	120.
21 MOUE REDPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS Al B0 G1 Al6 B0 P1 A0	1.00	190.
Al B0 G1 Al6 B0 P1 A0 22 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 3 ( 4 5 6 7 )	1.00	190.
Al B0 G1 (A1 B0 F1 A6 )R16A1 B0 P1 A0 (3) 23 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 26 ( 4 5	1.00	440.
67) Al B0 G1 (A1 B0 P1 R3 )A0 B0 F0 A0 (26)	1.00	1320.
24 MOUE BLACKPEN FROM FITTER AT WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1 00	100
A1 B0 G1 A16 B0 P1 A0 25 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 29 ( 4 5 6 7 )	1.00	190.
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (29) 26 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7)	1.00	1490.
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25) 27 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE	1.00	1290.
WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
28 HOVE CART FROM WORKTABLE TO 14FT. SHEAR Al B0 G1 A81 B0 P1 A0	1.00	840.

TOTAL TMU 14450.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION outPut to line-printer <Y or N> ? N

(39,1)

FIT • W11 STRGHT.M71

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH 14FT.SHEAR AT SHEETMETAL SHOP

PER STRAIGHT SECTION OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* 11 GAUGE GALV. SHEETMETAL
- \* 20'X14'X48'L STRAIGHT SECTION
- \* SHEAR STRAIGHT TOP AND BOTTOM SECTIONS

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL2 FROM CART AT 14FT.SHEAR TO		
	14FT.SHEAR WITH 4 STEPS F 2  Al B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2		
	Al' BO G1 Ml X3 IO AO	2.00	120.
3	POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 4		
	Al B0 G1 A6 B0 P6 A0	4.00	560.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 4		
	Al BO G1 Ml X3 IO AO	4.00	240.
5	REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 12 STEPS F 2		
	Al B0 G1 A24 B0 P3 A0	2.00	580.
6	MOVE. CART FROM 14FT.SHEAR TO I WORKTABLE		
	Al B0 G1 A81 B3 P1 A0	1.00	870.

TOTAL TMU 2650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## File Description ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N  $\,$ 

(39, 1)  FIT ● W11 STRGHT.M72  CUT CORNERS FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL
SHOP
PER STRAIGHT SECTION OFG: 4 08-JUL-83
NASSCO SHEETMETAL SHAPE 2
* 11 GAUGE GALV. SHEETMETAL
* 20'X14'X48'L STRAIGHT SECTION
* CUT CORNERS ON ENDS
FITTER BEGINS AT WORKTABLE
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE
WITH 4 STEPS F 2
Al BO G1 A6 HO P3 A0 2.00
2 MOLIE SABER-SAW2 FROM TOOLROOM TO WORKTARLE

	WITH I DIED F Z		
	Al BO G1 A6 HO P3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
_	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS		
	Al BO G1 M6 X67 IO AO	1.00	750.
4	POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH 3		
_	STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
_	OPERATE SABER-SAW AT WORKTABLE PROCESS	<b>±.</b> 00	_ 10.
5	OPERALE SABER-SAW AT WORKTABLE PROCESS		
	Al BO G1 M6 X67 IO AO	1.00	750.
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	, 50.
U			
	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
_	112 20 02 110 20 10 110	2.00	220.
/	MOVE SHEETMETAL2 ON CART FROM WORKTABLE TO		
	14FTHYDROPRESSBRAKE		
		1 00	000
	Al B0 G1 A96 B0 P1 A0	1.00	990.

TOTAL TMU 5040.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7690

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

output to line-printer <Y or N> ?

(39,1)FIT .W11

STRGHT.M73

SILL..... FOR SIGHLUHT SECTION WITH 14FT. HYDRO-PRESS-BRAKE

HI SHEETHE FAL SHUPTS

UFG: 4 24-MAY-83 PER STRATEGICAL

NASSAO SHEETMETAL SHARE

\*11 GAUGE GALV. SHEETMETAL

\* 20'X14"X48'L STRAIGHT SECTION

\* BEND SIDES--ON STRAIGHT UP 90 DEGREES

\* COMPLETE IN WELD BOOTH AREA

\*SEE MWELD.....SEE STRGHT.M74

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1 POSITION SHEETMETAL2 FROM CART AT 14FTHYDROPRESSBRAKE -TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
Al B0 G1 -A6 B0 P6 A0	2.00	280.
2 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2 Al B0 G1 Ml -X24 10 B0	2.00	540.
3 POSITION SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE F 2		
' Al BO G1 Al BO P6 AO	2.00	180.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 2 Al E0 G1 M1 X24 IO A0	2.00	5 4 🖍
5 REPLACE SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO CART AT 14FTHYDROPRESSRRAKE F 2		
Al EO Gl A1 BO P3 AO	2.00	120.
6 MOVE CART FROM 14FTHYDROPRESSBRAKE TO WORKTABLE Al E0 G1 A96 B3 Pi A0	1.00	1020.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10370

2680.

TOTAL TMU

#### luteut to line-printer <Y or N> ? N

3 9 WELD	, 3 ) WO1 STRGHT.M74		
WELL	WELD STRAIGHT SECTION WITH ARC (STICK) WELDER AT SHEETME	TAL SHO	)P
	ING BOOTH		
PER	STRAIGHT SECTION OFG: 4 21-JU	L-83	
	WELDING NASSCO SHEETMETAL SHAPE 2		
	* 11 GAUGE GALV. SHEETMETAL * 20X14X48'L STRAIGHT SECTION		
	* WELDING DONE IN WELD AREA BOOTH'		
	* WELDOR PERFORMS THE WORK		
	* FITTER TRANSPORTS SHEETMETAL		
	FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
	AT WORKTABLE WITH 4 STEPS F 2		
•	AL BO G1 A6 BO P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE  Al B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
	WELDTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	570.
	WELDMACHINES TO ON AT WELDMACHINES		
6	Al B0 G1 M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
О	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	A3 B3 G1 Al B0 P6 A0	4.00	560.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
0	Al B0 G1 M1 X10 IO A0 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1	4.00	520.
0	WRIST-TURN USING HAND F 21		
	Al BO G1 Al BO P1 F3 AO BO PO AO	21.00	1470.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 21		
т О	Al BO G1 M1 XO IO Al	21.00	840.
ΤО	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 21		
	Al BO G1 Al BO P6 AO	21.00	1890.
11	OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F 16		
10	Al BO G1 M6 X173IO AO	16.00	28960,
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 21  Al B0 G1 Ml X0 IO Al	21.00	840.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT	21.00	010.
	WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND		
	ASIDE PF 8 ( 4 5 6 7 )	1 00	1 4 0 0
14	Al B0 G1 (A1 B0 PO L16 )A1 B0 P1 A0 (8) WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10	1.00	1400.
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	3 2 ( 4 5 6 7 )		
1 -	Al BO G1 (A1 BO P1 C10 )A1 BO P1 AO (32)	1.00	3880.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		

WELDTABLE	$\mathtt{WITH}$	1	STEPS	┖	2
WEIDLIADIE	$M \perp T \perp T \perp T$		SILES	г	

16	FITTER	MOVE	CART	FROM				A6 B0 WORKTABLE		A 0	2.00	220.
					Al	В0	G1	A131B0	P1	A0	1.00	1340.

TOTAL TMU 44160.

#### File Description ? FORM LAP END FOR STRAIGHT SECTION

#### @Butput to line-printer <Y or N> ? N

(* 323.00 02 2002 0 0000	
(39,101)  FIT .W12 STRGHT.M04  FORM LAP END FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) A  SHEETMETAL SHOP  PER STRAIGHT OFG: -4 30-JUN-83  NASSCO SHEETMETAL SHAPE 2  * 20 GAUGE GALV. SHEETMETAL  * 8'X6'X96' LG STRAIGHT SECTION  * TWO (2) FITTERS REQUIRED  FITTER BEGINS AT LAPOUT	Т
1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4 Al B0 G1 A6 B0 P3 A0 4.00	440.
2 PUSH LAPOUT-SWITCH PROCESS F 4	
Al B0 G1 Ml X16 IO A0 4.00 3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS F 4	760.
A6 B0 G1 Ml X0 I3 A0 4.00	440.
4 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4	
Al BO G1 A6 BO P3 AO 4.00 5 MOUE CART FROM LAPOUT TO PITTSBURGH	440.
Al B0 Gl A6 B0 Pl A0 1.00	90.
TOTAL TMU	2170.

File Description ? FORM LAP END FOR STRAIGHT SECTION

8690

Output to line-printer <Y or N> ?

File Description ? FORM PITTSBURGH FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ? N

(39,101) FIT .W12 STRGHT.MO5

FORM PITTSBURGH FOR STRAIGHT SECTION WITH PITTSBURGH MACHINE AT

##SHEETMETAL SHOP

PER STRAIGHT OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

\* 20 GAUGE GALV. SHEETMETAL

\* 8'X6'X96' LG STRAIGHT SECTION

\* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT PITTSBURGH

1	PLACE	SHEETMETAL2	FROM	CART	AT	PITTSBURGH	TO	PITTSBURGH
	WITH	4 STEPS F	4					

		A1 B	) G1	Аб	в0	Р3	A0	4.00	440.
2	PUSH PITTSBURGH-BUTTON F	ROCESS	F 4						
		A1 B0	) G1	Ml	X32	IO	A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETA	L2 THRO	DUGH :	PITT	SBURG	H WI	TH 4		
	STEPS F 8								
		A6 B0	) G1	Ml	X0	I3	A0	8.00	880.
4	REPLACE SHEETMETAL2 FROM	PITTSE	BURGH	TO (	CART	AT			
	PITTSBURGH WITH 4 STEPS	F 4							
		A1 B(	) G1	Аб	в0	Р3	A0	4.00	440.
-5	MOUE CART FROM PITTSBURG	GH TO C	ORNIC	EBRA	KΕ				
		А1 во	G1	A24	в0	P1	A0	1.00	270.

3430. TOTAL TMU

File Description ? FORM PITTSBURGH FOR STRAIGHT SECTION

Output to line-Printer <Y or N> ?

12120

#### File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

#### @Jutput to line-printer <Y or N> ? N

(39,101)

ETT

STRGHT.MO6

BEND SHEETMETAL FOR STRAIGHT SECTION WITH CORNICE-BRAKE AT **5HEETMETAL SHOP** 

OFG: 4 30-JUN-83

15400

NASSCO	SHEETMETAL	SHAPE	2

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6'X96' LG STRAIGHT SECTION
- \* TWO (2) FITTERS REQUIRED
- \* BEND STRAIGHT SIDES UP 90 DEGREES FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2	
	Al BO G1 A6 BO P6 A0	2.00 280.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 2	
	Al BO G1 M6 X42 IO AO	2.00 1000.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRA	AKE
	F 2	0.00
	Al BO G1 Al BO P6 AO	2.00 180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 2	0.00 1000
_	Al B0 G1 M6 X42 IO A0	2.00 1000.
5		
	CORNICEBRAKE WITH 4 STEPS F 2  Al BO G1 A6 BO P3 A0	2.00 220.
6		2.00 220.
O	AL BO G1 A54 B3 P1 A0	1.00 600.
	AL DO GI ASI DS II AO	1.00
	TO	TAL TMU 3280.

File Description ? BEND SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

#### File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101) FIT ..**W12** STRGHT.M07

ASSEMBLE STRAIGHT SECTION WITH HAMMER AT SHEETMETAL SHOP STRAIGHT OFG: 4 30-JUN-83 FER STRAIGHT

NASSCO SHEETMETAL SHAPE 2 \* 20 GAUGE GALV. SHEETMETAL \* 8'X6'X96' LG STRAIGHT SECTION FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND PAOIDE PF 4 ( 4 5 6.7)	2.00	220.
3	Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (4) POSITION SHEETMETAL [TOP] FROM WORKTABLE TO SHEETMETAL [BOTTOM] AT WORKTABLE WITH 3 STEPS	1.00	320.
4	Al. BO G1 A6 BO P6 A0 PLACE SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	1.00	140.
_	WORKTABLE F 16 Al B0 G1 Al B0 P3 A0	16.00	960.
5	FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	1 00	1160
6	Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )	1.00	1160.
7	Al BO G1 (A1 BO PO F6 )Al BO P1 AO (10) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	740.
	USING HAMMER AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F32 )A1 B0 P1 A0 (50)	1.00	16540.
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.

20180. TOTAL TMU

File Description ? ASSEMBLE STRAIGHT SECTION

Output to line-printer <Y or N> ?

35,580

22. MIN.

## SHEETMETAL SHAPE

# 8"x6"x48"LG STRAIGHT SECTION. (STINLESS)

# WELDED AF SEAMWELDER WITH TIG-WELDER

FAB	16,850	. 10 MIN
MARK out	15,070	9 MIN
WELD	12,342	7 MIN
TOTAL TMU	44,262	27 MIN
		4 / ///



#### File Description ? MARK OUT STAINLESS STEEL STRAIGHT SECTION

#### ○Juteut to line-printer <Y or N> ? N

FIT	,101) .W14 STRGHT.M40 MARK OUT STAINLESS STEEL STRAIGHT SECTION WITH AWL AT SH	ᅙᅙᅲᄍᄝᅲᅑᅚ	
SHOP		C C I M C I A L	
	STRAIGHT OFG: 4 27-JUI NASSCO SHEETMETAL SHAPE 2 * 18 GAUGE CRES * 8'X6'X48' LG STRAIGHT SECTION FITTER BEGINS AT WORKTABLE	L-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )		
2	Al B0 G1 (Al B0 P1 M32 )Al B0 P1 A0 (2) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00	720.
3	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	140.
4	Al B0 G1 Al6 B1 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING STEEL-TAPE AT WORKTABLE WITH 2 STEPS AND ASIDE	1.00	190.
!	Al B0 G1 Al B0 P1 A3 M32 Al B0 P1 A0 5 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	410.
6	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )Al B0 P1 A0 (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	340.
7	WORKTABLE WITH 2 STEPS F 4  Al B0 G1 A3 B0 P6 A0  MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7)	4.00	440.
8	Al B0 G1 (A1 B0 P1 R16) A1 B0 P1 A0 (4) MOUE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	760.
9	Al B0 G1 Al6 B0 P1 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3	1.00	190.
10	Al B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS	3.00	3301
11	PF 3 (4567)  Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3)  POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL  AT MORKTABLE MITH 1 STEP AND ASIDE DE 2 (4567)	1.00	580.
12	AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 ( 4 5 6 7 )  Al BO G1 (A3 BO P6 AO )  HARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP	1.00	740.
13	AND ASIDE PF 8 ( 4 5 6 7 )  Al E0 G1 )Al B0 Pl A3 )R6 Al B0 Pl A0 (8)  MOUE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF	1.00	500.
	WORKTABLE WITH 9 STEPS Al B0 G1 Al6 B0 P1 A0	1.00	190.

14 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEPS AND ASIDE PF 8 ( 4 5 6 7 )  Al BO G1 (A3 BO P6 AO )	1.00	740.
15 MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 1 STEP AND ASIDE	1.00	710.
Al B0 G1 Al B0 P1 A3 R6 Al B0 P1 A0 16 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	1.00	150.
Al B0 G1 A3 B0 P6 A0  17 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	440.
Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (4)  18 MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	200.
Al B0 G1 Al6 B0 P1 A0  19 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT  WORKTABLE WITH 2 STEPS F 4	1.00	190.
Al B0 G1 A3 B0 P6 A0 20 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	4.00	440.
HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (4) 21 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2	1.00	200.
( 4 5 6 7 ) Al BO G1 (A1 BO P1 A3 )R16A1 BO P1 AO (2)  22 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 16	1.00	300.
( 4 5 6 7 ) Al BO Gl (Al BO Pl A3 )R6 Al BO Pl AO (16)  23 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )	1.00	900.
Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (25)  24 MOUE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	1290.
Al B0 G1 Al6 B0 P1 A0 25 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE	1.00	190.
Al B0 G1 Al B0 P1 R3 Al B0 P1 A0 26 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	90.
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 27 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
Al BO G1 A6 BO P3 A0	2.00	220.
28 MOUE CART FROM WORKTABLE TO 14FT.SHEAR Al B0 G1 Al52B0 P1 A0	1.00	1550.
TOTAL TM	U	15070,

File Description ? MARK OUT STAINLESS STEEL STRAIGHT SECTION
Output to line-Printer <Y or N> ?

Please input file (STRGHT.M41> ?

File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION Output to line-Printer <Y or N> ? N

(39,101)

.wíl4 STRGHT.M41

SHEAR STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH 14FT. SHEAR AT SHEETMETAL SHOP PER STRAIGHT OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

\* 18 GAUGE CRES

- \* 8'X6'X48' LG STRAIGHT SECTION \* USE 14FT. SHEAR

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SH	EAR TO	)		
	Al BO G1 A6	во ре	б АО	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 2				
	Al BO G1 Ml	X3 IC	0 A 0	2.00	120.
3	REPOSITION SHEETMETAL2 FROM 14FT.SHEAR TO 2	) 14FT.	.SHEAR F		
	_	во ре	5 A0	2.00	180.
4	PUSH 14FT.SHEAR-FOOTPEDALL PROCESS F 4				
	Al BO G1 Ml	X3 IC	O A 0	4.00	240.
5		ART AT			
	14FT.SHEAR WITH 5 STEPS F 4 Al BO G1 A10	B0 P1	3 AO	4.00	600.
6	MOUE CART FROM 14FT.SHEAR TO WORKTABLE	DU F.	5 A0	4.00	000.
U	Al BO G1 Al52	2B3 P1	1 A0	1.00	1580.

TOTAL TMU 3000.

File Description ? SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION Output to line-Printer <Y or N> ?

#### Please input file <STRGHT.M42> ?

File Description ? CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION

OutPut to line-printer <Y or N> ? N (39,101)

FIT

STRGHT.M42

CUT STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH SABER-SAW AT SHEETMETAL SHOP
STRAIGHT OFG: 4 27-JUL-83

PER

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE CRES
- \* 8'X6'X48' LG STRAIGHT SECTION FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4		
	AL BO G1 A6 BO P3 A0	4.00	440.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	FASTEN SAW-BLADE TO SHEETMETAL AT WORKTABLE 3		
	WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE	1 00	
	Al B0 G1 Al B0 P3 F6 Al B0 P1 A0	1.00	140.
4	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
	Al BO G1 Al BO P6 AO	4.00	360.
	OPERATE SABER-SAW PROCESS F 4		
	Al BO G1 M6 X67 IO AO	4.00	3000.
6	MOUE SABER-SAW FROM WORKTABLE TO OTHER SIDE OF		
	WORKTABLE WITH 9 STEPS		
	Al BO G1 Al6 BO P1 AO	1.00	190.
7	POSITION SABER-SAW FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
	Al BO G1 Al BO P6 AO	4.00	360.
8	OPERATE SABER-SAW PROCESS F 4		
	Al BO G1 M6 X67 IO AO	4.00	3000.
9	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
10	MOUE CART FROM WORKTABLE TO LAPOUT		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU

10250.

File Description ? CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ?

Please input file <STRGHT.M43> ?

File Description ? FORM LAPENDS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT STRGHT.M43

FORM LAPENDS FOR STRAIGHT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

PER STRAIGHT OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE CRES
- \* 8'X6'X48' LG STRAIGHT SECTION
- \* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4		
	A1 B0 G1 A6 R0 P3 A0	4.00	440.
2	PUSH LAPOUT-SWITCH PROCESS F 4	1.00	110.
	A1 B0 G1 Ml X16 IO A0	4.00	760.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 4 STEPS F 4		
	A6 B0 G1 Ml X0 I3 A0	4.00	440.
4	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH  4 STEPS F 4	1.00	110.
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
5		1.00	110.
5	AL BO G1 A32 BO P1 A0	1.00	350.
	ALL BO GI A32 BO FI A0	1.00	350.

TOTAL TMU

2430.

File Description ? FORM LAPENDS FOR STRAIGHT SECTION
Output to line-printer <Y or N> ?

Please input file <STRGHT.M44> ?

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION Output to line-printer <Y or N> ? N

(39,101)

FIT .W14 STRGHT.M44

BEND STAINLESS STEEL SHEETMETAL FOR STRAIGHT SECTION WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

\* 18 GAUGE CRES

\* 8'X6'X48' LG STRAIGHT SECTION FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2	
Al BO G1 A6 BO P6 A0	280.
2 OPERATE CORNICEBRAKE-LEVER PROCESS F 2	
A1 B0 G1 M6 X42 IO A0	1000.
3 POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE F 2	
Al BO Gl Al BO P6 AO	180.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 2	
A1 B0 G1 M6 X42 IO A0	1000.
5 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT	
CORNICEBRAKE WITH 4 STEPS F 2	
Al BO G1 A6 RO P3 A0	220.
6 MOVE CART FROM CORNICEBRAKE TO SEAMWELDER	
Al BO G1 All3B3 P1 AO	1190.

TOTAL TMU 3870.

File Description ? BEND STAINLESS STEEL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ?

Please input file <STRGHT.M45> ?

#### File Description ? WELD STAINLESS STEEL STRAIGHT SECTION

Output to line-printer <Y or N> ? N ( 39,101)

FIT STRGHT.M45

WELD STAINLESS STEEL SHEETMETAL STRAIGHT SECTION WITH SEAM WELDER AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE CRES
- \* 8'X6'X48' LG STRAIGHT SECTION
- \* USE TIG-WELDING MACHINE AT SEAM WELDER

FITTER BEGINS AT SEAMWELDER

1	SLIDE SEAMWELDER POWER ON-OFF-SWITCH AT SEAMWELDER		
2	USING HAND  A1 B0 G1 M3 X0 I0 A0  INSPECT PANEL-LIGHTS ON SEAMWELDER 9 POINTS	1.00	50.
2	A0 E0 G0 A0 B0 P0 T10 A0 B0 PO A0 TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN	1.00	100.
3	USING HAND	1 00	100
4	Al B0 G1 Al B0 P1 C6 A0 B0 PO A0 TWIST WIRE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND	1.00	100.
5	Al BO G1 Al BO P1 C6 AO BO PO AO TWIST SEAMWELDER VOLTAGE-METER-SWITCH 1 WRIST-TURN	1.00	100.
	USING HAND Al B0 G1 Al B0 P1 C6 A0 E0 P0 A0	1.00	100.
6	FITTER MOUE FROM SEAMWELDER TO CART AT END OF SEAMWELDER WITH 4 STEPS		
7	Al B0 G1 A6 B0 P1 A0 OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND	1.00	90.
8	Al B0 G1 M3 X0 IO A0 POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO BACK	1.00	50.
٥	SIDE OF SEAMWELDER WITH 4 STEPS  Al BO G1 A6 B0 P6 A0	1.00	140.
	PULL DOWN CENTERING-DEVICE 1 ARM-STROKE USING HAND F 4  Al BO G1 Ml XO IO AO	4.00	120.
10	TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 8	0.00	000
11	Al B0 G1 Al B0 P1 C6 A0 B0 P0 A0 PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER CENTERING-DEVICE F 2	8.00	800.
12	Al BO G1 Ml XO 13 AO PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S	2.00	120.
13	Al BO G1 Ml X6 IO AO LOOSEN CARRIAGE STOP FROM CARRIAGE-TRACK AT SEAMWELDER	1.00	90.
-	3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE		
14	A1 B0 G1 A1 R0 P3 L6 A1 B0 P1 A0 REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS	1.00	140.

#### STEGHT M.45

1 B0 G1 A6 B0 P6 A0 15 FASTEN CARRIAGE STOP AT SEAMWELDER 3 WRIST-TURNS USING	1.00	140.
ALLENWRENCH AT SEAMWELDER AND ASIDE Al B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 16 FITTER MOVE FROM SEAMWELDER TO CART AT END OF	1.00	140.
SEAMWELDER WITH 4 STEPS  Al B0 G1 A6 B0 P1 A0	1.00	90.
17 POSITION SHEETMETAL2 FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS		
A1 B0 G1 A6 B0 P6 A0  18 SHUT SEAHWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING  HAND	1.00	140.
A1 B0 G1 M3 X0 I0 A0 19 PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE	1.00	50.
USING HAND F 4  A1 B0 G1 M1 X0 I0 A0	4.00	120.
20 TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4		
A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0 21 PUSH AND GUIDE SHEETMETAL2 THROUGH SEAMWELDER	4.00	400.
CENTERING-DEVICE A1 B0 G1 M1 X0 I3 A0	1.00	60.
22 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S A1 B0 G1 M1 X6 I0 A0	1.00	90.
23 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S		
A1 B0 G1 M1 X32 I0 A0 24 PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6	1.00	350.
A1 B0 G1 M1 X17310 A0 25 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S	1.60	28.16.
Al BO G1 M1 X32 IO AO	1.00	350.
26 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2.S A1 B0 G1 M1 X6 I0 A0	1.00	90.
27 OPEN SEAMWELDER-LATCH 1 ARM-STROKE USING HAND A1 B0 G1 M3 X0 I0 A0	1.00	50.
28 REPOSITION SHEETMETAL2 FROM-SEAMWELDER TO SEAMWELDER WITH 6 STEPS		
A1 B0 G1 A10 B0 P6 A0 29 SHUT SEAMWELDER-LATCH 1 ARM-STROKE USING HAND	1.00	180.
A1 B0 G1 M3 X0 I0 A0	1.00	50.
30 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S A1 B0 G1 M1 X6 I0 A0	1.00	90.
31 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S A1 B0 G1 M1 X32 I0 A0	1.00	350.
32 PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 1.6		
A1 B0 G1 M1 X173I0 A0 33 PUSH SEAMWELDER TORCH-UP-AND-DOWN-SWITCH PTIME 10 S	1.60	2816.
A1 B0 G1 M1 X32 I0 A0 34 PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S	1.00	350.
A1 B0 G1 M1 X6 IO A0  35 OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING	1.00	90.
HAND		
A1 B0 G1 M3 X0 I0 A0 36 REPLACE SHEETMETAL2 FROM SEAMWELDER TO CART AT SEAMWELDER WITH 4 STEPS	1.00	50.
A1 B0 G1 A6 B0 P3 A0	1.00	110.
37 MOVE CART FROM SEAMWELDER TO WORKTABLE A1 B0 G1 A131B3 P1 A0	1.00	1370.

TOTAL TMU 12342.

STRGHT M45.

File Description ? WELD STAINLESS STEEL STRAIGHT SECTION
Output to line-printer <Y or N> ?

. SHEEFMETAL SHAPE . E

8"x6" x 96" LG STRAIGHT SECTION (WELDED)
WELDED AT SEAMWELDER WITH MIG WELDER

FAB	14620	. 9
MARK out	16160	10 112
WELD	15,044	9 MIN
TotOL +MU.	45824	27 MIN.

MN

Please input file <STRGHT.M20> ? N .

### $\frac{\sigma}{2}$ ile Description ? MARK OUT STRAIGHT SECTION

Output to line-printer <Y or N> ? N->

	,101) .w13 STRGHT.M20 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHE	ETMETAL	
	STRAIGHT OFG: 4 22-JUI NASSCO SHEETMETAL SHAPE 2 * 20 GAUGE GALV. SHEETHETAL * 8'X6'X96'L -STRAIGHT SECTION * MARK OUT WITHOUT TEMPLATE * WELDED WITH SEAMWELDER FITTER BEGINS AT WORKTABLE	L-83	
1	MEASURE DIMENSIONS N SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4 5 6 7 )		
2	A1 B0 G1 (A1 B0 P1. M32 )A1 B0 P1 A0 (2) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE.PF 2 ( 4 5 6 7 1	1000	720.
3	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2)  MOVE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF  WORKTABLE WITH 9 STEPS	1.00	140.
4	.A1. B0 G1 A16 B0 P1 A0.  MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )	1.00	190.
5	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	720.
6	A1 B0 G1 (A1 80 P1 R3 )A1 B0 P1 A0 (6) MOVE AWL, FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS	1.00	340.
7	A1 B0 G1 A6 B0 P1 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	90.
8	WORKTABLE WITH 2 STEPS F 3J  A1 B0 G1 A3 B0 P6 A0  MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6	3.00	330.
9	7 ) Al B0 G1 (Al B0 Pl R16 )Al B0 Pl A0 (3) MOVE STRAIGHTEDGE FROM WORKTABLE TO OTHER SIDE OF	1.00	580.
1.0	WORKTABLE WITH 9 STEPS  Al B0 G1 Al6 B0 P1 A0  POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	190.
10	WORKTABLE WITH 2 STEPS F 3  A1 B0 G1 A3 B0 P6 A0	3.00	330.
11	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 4 STEPS PF 3 (4567)		
12	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	580.

#### DIKGHI. MEU

	372647 7700		
	AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 ( 4 5 6 7 )		
13 1	A1 B0 G1 (A3 B0 P6 A0 1 MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE	1.00	7 4 0
	WITH 1 STEP PF 8 ( 4 5 6 7 ) A1 B0 G1 (A1 80 P1 R6 )A1 B0 P1 A0 (8)	1 00	600
14	MOVE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	680.
4	A1 B0 G1 A16 B0 P1 A0	1.00	190.
15 P	OSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP AND ASIDE PF 8 ( 4 5 6 7 )		
. 16	A1 B0 G1 (A3 B0 P6 A0 1 MARK LINES ON SHEETMETAL FROM CORNER TEMPLATE AT	1.00	740.
	WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE WITH 1 STEP PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8)	1.00	680.
<sub>c</sub> 17	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4		
18	A1 B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	440.
	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4)	1.00	200.
19	MOVE CPUNCH FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
	A1 B0 G1 A16 B0 P1 A0	1.00	190.
20	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 2 STEPS PF 4 ( 4 5 6 7 ) A1 B0 G1 (A3 B0 P6 A0 1	1.00	380.
21	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING		
	HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 80 P0 F3 )A1 B0 P1 A0 (4)	1.00	200.
22	MARK CUT LINES ON SHEETHETAL AT WORKTABLE 5 DIGITS		
	USING REDPEN AT WORKTABLE WITH 2 STEPS AND HOLD PF 2 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 A3 )R16A0 B0 P0 A0 (2)	1.00	280.
23	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 16 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 A3 )R6 A1 B0 P1 A0 (16)	1.00	900.
24	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7 )		
	ASIDE PF 25 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (25)	1.00	1290.
25	MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE		
	WITH 9 STEPS A1 B0 G1 A16 B0 P1 A0	1.00	190.
26	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 25 ( 4 5 6 7 )  Al B0 G1 (Al B0 Pl R3 >k1 B0 Pl A0 (25)	1.00	1290.
27	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
28	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	2640.
	WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220.
29	MOVE CART FROM WORKTABLE TO SMALLSHEAR	1 00	700.
	A1 B0 G1 A67 B0 P1 A0	1.00	700.

File Description ? MARK OUT STRAIGHT SECTION
Output to line-printer <Y or N> ?

Please input file (STRGHT.M21> ?

File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT .W13 STRGHT.M21

SHEAR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP PER STRAIGHT OFG: 4 -22-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* 18 GAUGE GALV. SHEETMETAL
- \* 8'X6'X96' LG STRAIGHT SECTION
- \* TWO (2) FITTERS REQUIRED
- \* WELDED WITH SEAMWELDER

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 2		
4	Al BO Gl Al BO P6 AO	2.00	180.
4	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 5 STEPS F 4		
	A 1 B0 G1 A10 B0 P3 A0	4.00	600.
5	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU 1970.

File Description ? SHEAR STRAIGHT SECTION

Output to line-printer <Y or N> ?

#### Please input file <STRGHT.M22> ?

#### File Descrirtion ? CUT CORNERS FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

' ( 39,101)  FIT ,W13 STRGHT,M22  CUT CORNERS FOR STRAIGHT SECTION WITH SNIPS AT SHEETMETA  PER STRAIGHT OFG: 4 22-JU  NASSCO SHEETMETAL SHAPE 2  * 20 GAUGE GALV. SHEETMETAL  * 8.X6.X96' LG STRAIGHT SECT-ION  * WELDED WITH SEAMWELDER  FITTER BEGINS AT WORKTABLE		
1.PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4		
Al B0 G1 A6 B0 P3 A0 2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	4.00	440.
A1 B0 G1 A1 B0 P6 A0 3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (4) 4 MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS AND HOLD	1.00	320.
A1 B0 G1 A6 B0 P1 A0 '5 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	90.
A1 B0 G1 A1 B0 P6 A0 6 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (4) 7 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE-3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	320.
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (4) 8 MOVE HAMMER FROM WORKTABLE TO OTHER END OF WORKTABLE WITH 4 STEPS AND HOLD	1.00	320.
A1 B0 G1 A6 B0 P1 A0 9 FITTER MOVE HAMMER TO SHEETMETAL AT WORKTABLE	1.00	90.
A1 B0 G1 A1 B0 P1 A0 10 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 4 (1 4 5	1.00	40.
67) A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (4) 11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F -4	1.00	320.
A1 B0 G1 A6 B0 P3 A0 12 MOVE CART FROM WORKTABLE TO LAPOUT	4.00	440.
A1 B0 G1 A54 B0 P1 A0	1.00	570.

3670.

TOTAL TMU

Please input file <STRGHT.M23> ?

File Description ? FORM LAP ENDS ON STRAIGHT SECTION
Output to line-printer <Y or N> ? N

( 39,101)  FIT .W13 STRGHT.M23  FORM LAP ENDS ON STRAIGHT SECTION WITH LAPOUT MACHINE AT  SHEETMETAL SHOP  PER STRAIGHT OFG: 4 22-JUL-83  NASSCO SHEETMETAL SHAPE 2  * 20 GAUGE GALV. SHEETMETAL  * 8'X6'X96' LG STRAIGHT SECTION  * TWO (2) FITTERS REQUIRED  * WELDED WITH SEAMWELDER  FITTER BEGINS AT LAPOUT	
1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4 Al B0 Gl A6 B0 P3 A0 4.00 2 PUSH LAPOUT-SWITCH PROCESS F 4 Al B0 Gl M1 X16 I0 A0 4.00 3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 4 STEPS	440. 760.
F 4  A6 B0 G1 M1 X0 I3 A0 4.00 4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4	440.
A1 B0 G1 A6 B0 P3 A0 4.00. 5 MOVE CART FROM LAPOUT TO CORNICEBRAKE A1 B0 G1 A32 B0 P1 A0 1.00	440. 350.
TOTAL TMU	2430,

File Description ? FORM LAP ENDS ON STRAIGHT SECTION
Output to line-printer <Y or N> ?

8070

#### \*ile Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(39,101)

FIT .W13 STRGHT.M24

BEND STRAIGHT SECTION WITH CORNICE-BRAKE AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 22-JUL-83

NASSCO SHEETMETAL SHAPE 2

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6'X96' LG STRAIGHT SECTION
- \* TWO (2) FITTERS REQUIRED
- \* BEND STRAIGHT SIDES UP 90 DEGREES
- \* WELDED WITH SEAMWELDER

FITTER BEGINS AT CORNICEBRAKE

1	POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 4		
	Al BO Gl A6 BO P6 A0	4.00	560.
2	OPERATE CORNICEBRAKE-LEVER PROCESS F 4		
	A1 B0 G1 M6 X42 S0 A0	4.00	2000,
3	POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRA	KE	
	F 4		
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 4		
	A1 B0 G1 M6 X42 I0 A0	4.00	2000.
5	REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT		
	CORNICEBRAKE WITH 4 STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOVE CART FROM CORNICEBRAKE TO SEAMWELDER		
	A1 B0 G1 A113B3 P1 A0	1.00	1190.
	TOT	AL TMU	6550.

File Description ? BEND STRAIGHT SECTION

Output to line-printer <Y or N> ?.->

14620

#### Please input file <STRGHT.M25> ?

File Description ? SEAM WELD STRAIGHT SECTION

Output to line-printer <Y or N> ? N

(	39	, 1	01	)
١,		, –		,

j

FIT • W14

STRGHT.M25

WELD STRAIGHT SECTION WITH SEAM-WELDER AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 27-JUL-83

PER	STRAIGHT OFG: 4 27-JU SEAM-WELDING NASSCO SHEETMETAL SHAPE 2 * 20 GAUGE GALV. SHEETMETAL * 8'X6'X96' LG STRAIGHT SECTION * WELDED WITH SEAMWELDER FITTER BEGINS AT SEAMWELDER	L-83	
1	SLIDE SEAMWELDER POWER-SWITCH 1 WRIST-STROKE AT SEAMWELDER USING HAND		
2	A1 B0 G1 M3 X0 I0 A0 INSPECT PANEL LIGHTS ON SEAMWELDER 9 POINTS	1.00	50.
	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
3	TWIST CARRIAGE-SPEED-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0	1.00	100.
4	TWIST VOLTAGE-SWITCH AT SEAMWELDER 1 WRIST-TURN USING HAND		
	A1 B0 G1 A1 B0 P1 C6 A0 B0 P0 A0	1.00	100.
5	TWIST AMP-SWITCH AT SEAMWELDER. WRIST-TURN USING HAND A1 B0 G1 A1 B0 31 C6 A0 B0 P0 A0	1.00	100.
6	FITTER MOVE FROM SEAMWELDER TO CART AT END OF	1.00	100.
	SEAMWELDER WITH 4 STEPS  Al B0 G1 A6 B0 P1 A0	1.00	90.
7	POSITION SHEETMETAL FROM CART AT SEAMWELDER TO BACK	1.00	J0.
	SIDE OF SEAMWELDER WITH 4 STEPS F 2  Al BO G1 A6 B0 P6 A0	2.00	280.
8	PULL DOWN CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE	_,,,	
	USING HAND F 4  Al B0 G1 M1 X0 I0 A0	4.00	120.
9	TWIST CENTERING-DEVICE-BLADE AT SEAMWELDER 1 WRIST-TURN		
	USING HAND F 4 Al B0 G1 A1 B0 P1 C6 A0 B0 P0 A0	4.00	400 •
10	PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER		
	CENTERING-DEVICE F 2  Al B0 G1 M1 X0 I3 A0	2.00	120.
11	PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S	1 00	
12	A1 B0 G1 M1 X6 I0 A0 LOOSEN CARRIAGE-STOP FROM CARRIAGE-TRACK AT SEAMWELDER	1.00	90.
	3 WRIST-TURNS USING ALLENWRENCH AT SEAMWELDER AND ASIDE		
	ASIDE A1 B0 G1 A1 H0 P3 L6 A1 B0 P1 A0	1.00	140.
13	REPOSITION CARRIAGE-STOP FROM SEAMWELDER TO		
	CARRIAGE-TRACK AT SEAMWELDER WITH 3 STEPS A1 H0 G1 A6 B0 P6 A0	1.00	140.
14	FASTEN CARRIAGE-STOP AT SEAMWELDER 3 WRIST-TURNS USING		
	ALLWRENCH AT SEAMWELDER AND AS1DE A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.

#### 3126A1 17 43

. A1 B0 G1 A6 B0 F1 A0 POSITION SHEETMETAL FROM CART AT SEAMWELDER TO FRONT	1.00	90.
A1 B0 G1 A6 B0 F6 A0 PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE	2.00	280.
Al BO G1 M1 XO IO AO	4.00	120.
USING HAND F 4 A1 B0 G1 A1 B0 P1 C6 A0 B0 F0 A0	4.00	400.
	1.00	60.
PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S		90.
CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND	1.00	J0.
A1 B0 G1 M10 X0 I0 A0	2.00	240.
Al BO Gl M6 XO IO AO	1.00	80.
PUSH SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4  A1 B0 G1 M1 X17310 A0	5.40	9504.
CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2		
	2.00	240.
A1 B0 G1 M1 X6 I0 A0	2.00	180.
HAND F 2		
REPLACE SHEETMETAL FROM SEAMWELDER TO CART AT	2.00	100.
A1 B0 G1 A6 B0 P3 A0 SHUT SEAMWELDER-LATCH AT SEAMWELDER 3 ARM-STROKES USING	2.00	220 .
Al BO Gl M3 XO IO AO	2.00	100.
	1.00	1370.
	MITT	15044.
	FITTER MOVE CART FROM SEAMWELDER TO END OF SEAMWELDER WITH 4 STEPS  . A1 B0 G1 A6 B0 F1 A0  POSITION SHEETMETAL FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS F 2  A1 B0 G1 A6 B0 F6 A0  PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4.  A1 B0 G1 M1 X0 I0 A0  TWIST CENTERING-DEVICE BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4  A1 B0 G1 A1 B0 P1 C6 A0 B0 F0 A0  PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER  A1 B0 G1 M1 X0 I3 A0  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S  A1 B0 G1 M1 X0 I0 A0  CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F 2  A1 B0 G1 M10 X0 I0 A0  CRANK SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4  A1 B0 G1 M1 X17310 A0  CRANK SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4  A1 B0 G1 M1 X17310 A0  CRANK SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2  A1 B0 G1 M10 X0 I0 A0  PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2  A1 B0 G1 M10 X0 I0 A0  PUSH SEAMWELDER TORCH AT SEAMWELDER 6 REVS USING HAND F 2  A1 B0 G1 M1 X17310 A0  CRANK SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2  A1 B0 G1 M10 X0 I0 A0  PUSH SEAMWELDER CLAMPING-DEVICE-FOOTSWITCH PTIME 2 S F 2  A1 B0 G1 M3 X0 I0 A0  OPEN SEAMWELDER-LATCH AT SEAMWELDER 1 ARM-STROKE USING HAND F 2  A1 B0 G1 M3 X0 I0 A0  SHUT SEAMWELDER-LATCH AT SEAMWELDER 3 ARM-STROKES USING HAND F 2  A1 B0 G1 M3 X0 I0 A0  SHUT SEAMWELDER-LATCH AT SEAMWELDER 3 ARM-STROKES USING HAND F 2  A1 B0 G1 M3 X0 I0 A0  MOVE CART FROM SEAMWELDER TO WORKTABLE  A1 B0 G1 M3 X0 I0 A0  MOVE CART FROM SEAMWELDER TO WORKTABLE  A1 B0 G1 M3 X0 I0 A0	### FITTER MOVE CART FROM SEAMWELDER TO END OF SEAMWELDER WITH 4 STEPS  . A1 B0 G1 A6 B0 F1 A0 1.00  POSITION SHEETMETAL FROM CART AT SEAMWELDER TO FRONT SIDE OF SEAMWELDER WITH 4 STEPS F 2 A1 B0 G1 A6 B0 F6 A0 2.00  PUSH UP CENTERING-DEVICE AT SEAMWELDER 1 ARM-STROKE USING HAND F 4.  A1 B0 G1 M1 X0 IO A0 4.00  TWIST CENTERING-DEVICE BLADE AT SEAMWELDER 1 WRIST-TURN USING HAND F 4 A1 B0 G1 A1 B0 P1 C6 A0 B0 F0 A0 4.00  PUSH AND GUIDE SHEETMETAL THROUGH SEAMWELDER A1 B0 G1 M1 X0 I3 A0 1.00  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S A1 B0 G1 M1 X6 IO A0 1.00  CRANK SEAMWELDER-TORCH AT SEAMWELDER 6 REVS USING HAND F2 A1 B0 G1 M1 X0 IO A0 2.00  CRANK SEAMWELDER-TORCH AT SEAMWELDER 3 REVS USING HAND SEAMWELDER A1 BO G1 M1 X17310 A0 5.40  CRANK SEAMWELDER SEQUENCE-START-SWITCH PROCESS F 5.4 A1 BO G1 M1 X17310 A0 5.40  CRANK SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S F 2 A1 BO G1 M1 X0 IO A0 2.00  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S F 2 A1 BO G1 M1 X0 IO A0 2.00  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S F 2 A1 BO G1 M1 X6 IO A0 2.00  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S F 2 A1 BO G1 M1 X6 IO A0 2.00  PUSH SEAMWELDER CLAMPING-DEVICE-FOOT-SWITCH PTIME 2 S F 2 A1 BO G1 M3 X0 IO A0 2.00  REPLACE SHEETMETAL FROM SEAMWELDER TO CART AT SEAMWELDER T

File Description ? SEAM WELD STRAIGHT SECTION
Output to line-printer <Y or N> ?

# SHEEFMETAL SHAPE # 2

8"x 6" x 96" LG. STRAIGHT SECTION (WITH PITSBURG

FAB	35580	21 HIN.
MARK out	12280	7 MIN.
TOTAL TMU.	47860	29- MIN,

## Sutput to line-printer <Y or N> ? N

party 20.			
	9,101) .W12 STRGHT.M01 MARK OUT SHEETMETAL FOR STRAIGHT SECTION WITH AWL AT SHEE	TMETAL	
	STRAIGHT SECTION OFG: 4 25-JUL NASSCO SHEETMETAL SHAPE 2 * 20 GAUGE GALV, SHEETMETAL * 8'X6'X96' LG STRAIGHT SECTION * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	u-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 (4567)		
2	A1 B9 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (2)  MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING AWL AT WORKTABLE AND ASIDE PF 2 (. 4 5 6 7 )  A1 80 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2)	1.00	720. 140.
3	MOUE STEEL-TAPE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS	1.00	
4	A1 B0 G1 A16 B0 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE WITH 2 STEPS PF 2 ( 4 5 6 7 )	1.00	190.
5	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 F1 A0 (2) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8 ( 4 5 6 7 )	1.0.0	720.
6	A1 B0 G1 (A1 B0 P1 A3 )R3 A1 B0 P1 A0 (8) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	1.00	470.
7	A1 B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2 ( 4567 )	2.00	220.
8	· · · · · · · · · · · · · · · · · · ·	1.00	300.
9	A1 B0 G1 A16 B0 P1 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETHETAL AT WORKTABLE WITH 2 STEPS F 2	1.00	190.
10	A1 B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 2 ( 4567 )	2.00	220.
11	A1 B0 G1 (A1 B0 P1 A6 )R16A1 B0 F1 A0 (2) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	360.
<i>ि</i> ) 12	A1 B0 G1 A1 B0 P6 A0  MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS  AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
	Al B0 G1 (Al B0 F1 A3 )R6 Al H0 F1 A0 (4)	1.00	300.

## STRGHT MOI

	3,700		
13	MOUE CORNER TEMPLATE FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS		
14	A1 B0 G1 A16 B0 P1 A0 POSITION TEMPLATE FROM WORKTABLE TO SHEETHETAL AT WORKTABLE F 4	1.00	190.
15	A1 B0 G1 A1 B0 P6 A0 4.  MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT  WORKTABLE 2 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS  AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
16	AND ASIDE FF 4 (4507) A1 B0 G1 (A1 B0 P1 A3 )R6 A1 B0 F1 A0 (4) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	1.00	300.
17	A1 B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE WITH 2 STEPS AND ASIDE PF 3 ( 4 5 6 7 )	4.00	440.
18	A1 B0 G1 (A1 B0 P0 A3 )F3 A1 B0 P1 A0 (3) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 2	1.00	190.
19	( 4 5 6 7 ) A1 80 G1 (A1 B0 P1 A3 )R16A1 B0 F1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS USING REDPEN AT WORKTABLE WITH 2 STEPS AND ASIDE PF 8	1.00	300.
20	( 4567 ) A1 B0 G1 (A1 B0 F1 A3 )R6 A1 B0 F1 A0 (8) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	500.
21	ASIDE PF 25 ( 4 5 6 7 )  Al BO G1 (Al BO Pl R3 )Al BO Pl A0 (25)  MOVE BLACKPEN FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 9 STEPS'	1.00	1290.
22	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	190.
23	ASIDE PF 25 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 P1 R3 )A1 R0 P1 A0 (25)  MARK IDENTIFICATION ON SHEETHETAL AT WORKTABLE 1 DIGIT	1.00	1290.
23	USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		0.5.1.0
24	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (52) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
25	A1 B0 G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO SMALLSHEAR	2.00	220.
23	A1 B0 G1 A67 B0 F1 A0	1.00	700.
	TOTAL TM	ſŪ	12800.

File Description ? MARK OUT SHEETMETAL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ? ."rZ-i

### File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ? N

( 399101 )

FIT • #12 STRGHT.M02

SHEAR SHEETMETAL FOR STRAIGHT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER STRAIGHT OFG: 4 30-JUN-83

NASSCO SHEETMETAL SHAPE 2

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6'X96' LG STRAIGHT SECTION
- \* TWO (2) FITTERS REQUIRED

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEP F 2	
	A1 B0 G1 A6 B0 P6 A0 2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	
	A1 B0 G1 M1 X6 I0 A0 2.00	180.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 2	
	A1 B0 G1 A1 B0 P6 A0 2.00	180.
4	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT	
	SMALLSHEAR WITH 5 STEPS F 4	
	A1 B0 G1 A10 B0 P3 A0 4.00	600.
5	MOVE CART FROM SMALLSHEAR TO WORKTABLE	
	A1 B0 G1 A67 B3 P1 A0 1.00	730.
	TOTAL TMU	1970.

File Description ? SHEAR SHEETMETAL FOR STRAIGHT SECTION
Output to line-printer <Y or N> ?

File	Description	1	CUT	CORNERS	ON	SHEETMETAL	FOR	STRAIGHT	SECTION
------	-------------	---	-----	---------	----	------------	-----	----------	---------

Output to line-printer <Y Or N> ? N

Out	tput to line-printer <y n="" or=""> ? N</y>	
FIT	9,101 )  .W12 STRGHT.M03  CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION WITH SNIPS AT  ETMETAL SHOP  STRAIGHT OFG: 4 30-JUN-83  NASSCO SHEETHETAL SHAPE 2  * 20 GAUGE GALV. SHEETMETAL  * 8'X6'X96' LG STRAIGHT SECTION  FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4	
2	A1 B0 G1 A6 B0 P3 A0 4.00 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	440.
3	A1 B0 G1 A1 B0 P6 A0 6.00 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING	540.
4	SNIPS AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )  Al B0 G1 (Al B0 P3 C3 )Al B0 P1 A0 (6) 1.00  MOVE SNIPS FROM WORKTABLE TO OTHER SIDE OF WORKTABLE	460.
_	WITH 4 STEPS  A1 B0 G1 A6 B0 P1 A0 1.00  POSITION SNIFS FROM WORKTABLE TO SHEETMETAL AT  WORKTABLE F 6	90.
(^ <u>)</u>	A1 B0 G1 A1 B0 P6 A0 6.00 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING	540.
7	SNIPS AT WORKTABLE. AND ASIDE PF 6 ( 4 5 6 7 )  A1 80 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (6) 1.00  FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3  STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	460.
8	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (6) 1.00  MOVE HAMMER FROM WORKTABLE TO OTHER SIDE OF WORKTABLE WITH 4 STEPS	460.
9	A1 B0 G1 A6 B0 P1 A0 1.00 FASTEN (FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	90.
10	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (6) 1.00  PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE  WITH 4 STEPS F 4	460.
11	A1 B0 G1 A6 B0 F3 A0 4.00 MOUE CART FROM WORKTABLE TO LAPOUT	440.
11	A1 B0 G1 A54 B0 P1 A0 1.00	570.
	TOTAL TMU	4550.

File Description ? CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION

Output to line-printer <Y or N> ?

# 8"x8"x5"DIA. x9"IG SQUARE to BUND

FAB	4/460	25 MIN	
MARK out	21660	12 MIN.	,
WELD	11.860	- 7 MIN.	
TOTAL	74980	45. MIN.	

·. ´ .				57年(財務教育			- 12 Hills 2 March	网络马克格拉			3/02 11101 PAGE 1	
165	AR <sub>i</sub>		HA380					ir Litar		HEPARCO QUYI	ande 1944 . Lune	•
ដុំបូរ	enection	liptr	discription .	PARAHETER		HOTURETUAL	Echico Cor Tino	A Et UA	Eliven.	PIART BATE	DRAWING INFORMATION	· Arg
Ģ	ga-nios!	114	THE GET WAYN	MATER TERRIT &	NREC	HEC	IMPEC	HHEC	*	11/05/02	1025083008-157-1548	
. ji	liat-posti	410	The state of the s		HUGG	Y VALUE C	inuc'	HHK		11/03/03	11929981007-127313	
Ç	84 - 4 50 0 <b>1</b>	114	HOTABLE WATER HO	A ARE FUR HULL	NREÇ	HREG			7	15/01/92	1195992002-124-134	
Ç	va -2 20 0 1	414	า ให้ผู้ที่ ก็สูกรายค. พพพพพี - ตับที่ ค.ศ. รถกักกำเหตุ นัก	việt hợp thời	NREL	NURC	inic	NURC	Harris Harris	64/96/83	\$	
Ģ	256 10 21	114	NXXX MOTOR SHOOM WAY!	TIC CUNTROL PA TITE RESERVATION.	Nerg	Hute	NHEC.	Nugaç		EBYGOVES .	E E VOO VEO - E O L'ESTELLE L'ESTELL	
Ċ	: 44-hopas	43.0	SEE BROSE & CATA	ATTOLL OF CHAIN	in Nade	A MURS	inte	NAPO	2	68/83/83	03/16/03 03/16/03	
,		,	hut	। व्राव्यक्ति । व्यवस्था । १९०१ मार्चे १९०१	,	9 <del>959</del>		0 944 .		, ,		

#### $\lambda$ File Description ? MARK OUT SQUARE TO ROUND Output to line-printer- <Y or N> ? N (39, 3) FIT .W08 SO2RND.M30 HARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL-SHOP PER SQUARE TO ROUND OFG: 4 -23-MAR-83 NASSCO SHEETMETAL SHAPE #3 \* HULL 418 \* DRAWING 501 - 292 \* V2-92008 \* V6-1951 \* 22 GAUGE GALV. SHEETMETAL-\ \* 8'X8' TO 5' DIA 9'L SQUARE TO\ROUND \* USE TEMPLATE TO MARK OUT 2 HALVES -FITTER BEGINS Al- WORKTABLE 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 -a-- - A1 B0 G1 A6 B0 P6 A0 2.00 280. 2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE -WITH -4 STEPS F 2 2.00 220. A1 B0 G1 A6 B0 P3 A0 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF . 9 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1- A0 (9) 1.00 1660. 4 POSITION. CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 40 40.00 3600. A1 B0 G1 A1 B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 ) )A1 80 P1. A0 (40) 1.00 1640. (A1 B0 P0 F3 A1 B0 G1 6 REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 2 ----A1 B0 G1 A6 B0 P3 A0 2.00 220. 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2 2.00 220. A1 B0 G1 A6 B0 P3 A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 18 ( 4 5 6 7 ) 1.00 3280. A1 H0 G1 (A1 B0 P1 R16 )A1 80 P1 A0 (18) 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 99 ( 4 5 6 7 ). 4990. 1.00 A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (99) 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPLEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7

A1 B0 G1 (A1 H0 P1 R3 )A1 B0 F1 A0 (52)

A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0

SHEETMETAL [COLLAR] AT WORKTABLE USING

STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )

\_1

2640.

1060.

1.00

1.00

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE.1 DIGIT		
USING AWL_ AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )		
A1 80 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (3) 1	1.00	190.
13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT		
WORKTABLE F 2		
' A1 B0 G1 A1 B0 P6 A0 2	2.00	180.
14 MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING		
AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) 1	1.00	140.
15 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING		
REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (3) 1	1.00	190.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
ASIDE PF 6 ( 4 5 6 7 )		
A1 B0 G1- (A1 B0 P1 R3 )A1 B0 P1 A0 (6) 1	1.00	340.
17 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
'WITH 4 STEPS		
	1.00	110.
18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1 00 1	700
A1 B0 G1 A67 B0 P1 A0 1	1.00	700.
TOTAL TMU	216	560.
TOTAL IMO	210	

Type D, EM, CT, EW, EX, LD, LS, M, T, W <or H for help> ?

### File Description ? SHEAR 22 GAUGE SHEETMETAL FOR SQUARE TO ROUND

Output to line-winter <Y or N> ? N

FIT ,W11

SQ2RND.M31

SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH SMALLSHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL \* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
- \* USE TEMPLATE TO MARK OUT 2 HALVES

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM	CAR	T A	Г SM	ALLS	HEAR	ТО			
	SHALLSHEAR WITH 4 STEPS	F 2								
		A1	В0	G1	Аб	в0	Рб	A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSH	EAR	PRO	CESS						
		A1	В0	G1	M1	Хб	ΙO	A0	1.00	90.
3	POSITION SHEETMETAL2 FROM 4 STEPS	SHA	ALLS	HEAR	TO	SMAL	LSHE	AR WITH		
		A1	в0	G1	А6	в0	Р6	A0	1.00	140.
4	PUSH FOOTPEDAL AT SMALLSH	EAR	PRO	CESS	F 1	2			_,_,	
_		A1	В0	G1	M1	_ X6	ΙO	A0	12.00	1080.
5	REPLACE SHEETMETAL2 FROM	SMAI	LLSH	EAR	TO C	ART	ΑT			
	SMALLSHEAR WITH 8 STEPS	F 2								
		A1	В0	G1	Al6	в0	Р3	A0	2.00	420.
6	MOUE CART FROM SMALLSHEAR	ТО	WOR	KTAE	BLE					
		A1	В0	G1	A67	В3	Р1	A0	1.00	730.
			-					-		, 5 0 1

TOTAL TMU 2740.

Type D, EM, CT. EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? SHEAR RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

( 39, 3)

FIT .W11 SQ2RND.M32

SHEAR SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH UNI-SHEAR AT SHEETMETAL SHOP PER SQUARE TO ROUND

OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #3

\* HULL 418

\* DRAWING 501-292

\* V2-92008

\* V6-1951

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND \* SHEAR FLAT OVAL RADIUS

FITTER BEGINS AT WORKTABLE

1			HEETMETAL2 STEPS	FROM	CART	AT	WORKT	CABLE	ТО	WORK	TABLE	
	MTIH	4	SIEPS		Α1	вС	) G1	Аб	в0	Р3	AΩ	

	WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 <b>P1 A0</b>	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 2		
	A1 B0 G1 M6 X17310 A0	2.00	3620.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (4)	1.00	320.
5	FASTEN ( FLATTEN ) SHEETMETAL [CORNERS] AT WORKTABLE 3		
	STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5		
	6 7)		
	Al BO Gl (Al BO PO F6 )Al BO Pl AO (8)	1.00	600.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		

	WITH	4 S7	TEPS											
					A1	в0	G1	Аб	В0	P3	A0	1.00		110.
7	MOUE	CART	FROM	WORKTABLE	TO	HAND	-ROL	LER A	W TA	ORKB	ENCH			
					A1	в0	G1	A67	В3	Ρ1	A0	1.00	1	730.

TOTAL TMU 7460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

Please input file <SQ2RND.M33> ?

File Description ? FORM COLLAR FOR SQUARE TO ROUND

Output to line-printer (Y or N> ? N

( 39, 3) FIT .W08

SQ2RND.M33

FORM SHEETMETAL FOR SQUARE TO ROUND COLLAR WITH

HAND OPERATED ROLLER AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #3

\* HULL 418

\* DRAWING 501-292

\* V2-92008

I

\* V6-1951

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8' TO 5' DIA. 9'L SQUARE TO ROUND

\* ROLL UP 1'X15 3/4' SHEETMETAL COLLAR

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS		
A1 B0 G1 A6 B0 P3 A0	1.00	110;
2 FASTEN SHEETMETAL2 WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 2		
Al BO Gl Al BO Pl FlO AO BO PO AO	2.00	280.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND A1 B0 G1 M6 X0 I0 A0	1.00	80.
4 LOOSEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT	1.00	00.
WORKBENCH 5 SPINS USING HAND A1 B0 G1 A1 B0 P1 L10 A0 B0 P0 A0	1.00	140.
5 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO	1.00	140.
CART AT WORKBENCH WITH 4 STEPS  Al BO G1 A6 B0 P3 A0	1.00	110.
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO LEAFBRAKE	1.00	110.
A1 B0 G1 A10 B0 P1 A0	1,00	130.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

850.

TOTAL TMU

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

lease input file <SQ2RND.M34> ?

File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ?

%A command is required,

Output to line-printer <Y or N> ? N

(39, 3)

FIT . W 0 8 SQ2RND.M34

BEND SHEETMETAL FOR SQUARE TO ROUND RADIUS WITH LEAF BRAKE AT SHEETMETAL SHOP

PER SQUARE TO ROUND DFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #3

\* HULL 418

- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GUAGE GLAV. SHEETMETAL
- \* 8'X8' TO 5'DIA. X 9' L SQUARE TO ROUND \* BEND RADIUS ON 2 PIECES
- FITTER BEGINS AT LEAFBRAKE

1	PLACE	SHEETMETAL2	FROM	CART	AT	LEAFBRAKE	TO	LEAFBRAKE
	WITH	4 STEPS F 2						

90.
19200.
110.
870.

TOTAL TMU 20490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

31,540



File Description ? ASSEMBLE SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)

FIT , WO8 SQ2RND.M35

ASSEMBLE SHEETMETAL FOR SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #3

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
- \* RIVET BOTTOM
- \* LEAVE TOP LOOSE TO ADJUST COLLAR

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CAI	RT A	I TA	VORKT.	ABLE	TO	WORK	TABLE			
	•	A1	В0	G1	Аб	в0	P3	A0		1.00	110.
2	FASTEN 5.32DRILL-BIT FROM	WOR	KTAI	BLE T	ro di	RILLI	OTO	R AT			
	WORKTABLE 3 WRIST-TURNS	USIN	G CI	HUCKK	CEY A	AND A	ASIDI	3			
	A1 B0 G1 A1	в0	Р3	Fб	A1	в0	P1	A0		1.00	140.
3	POSITION SHEETMETAL FROM	WORK	TABI	E TO	OW O	RKTAE	BLE 1	WITH :	3		
	STEPS										
	A1	в0	G.	1 A	.6 I	30	Р6	A0		1.00	140.
4	GRIP SHEETMETAL TO SHEETM						SING				
	VISEGRIPS AT WORKTABLE AN				- (		6 7	)			
	A1 B0 G1 (A1	в0	Р3	C1	>A1		Р1	A0	(2)	1.00	140.
5		KTAB:	_	PROCE		_	_				
		A1	В0	G1	М6	Х6	ΙO	A0		2.00	280.
6	POSITION RIVETS FROM WORK	TABL	E T	) SHE	EETMI	${f ETAL}$	ΑT				
	WORKTABLE F 2										
			В0	G1	A1	В0	Р6	A0		2.00	180.
7	OPERATE RIVETGUN PROCESS	F 2									
		A1	В0	G1	Мб	х3	ΙO	A0		2.00	220.

'Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

32,750

TOTAL TMU

1210.

OFG: 4 24-MAR-83

Please input file <SQ2RND.M36> ?

File Description ? TACK WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3) FIT .W08

SQ2RND.M36

TACK SHEETMETAL FOR SQUARE TO ROUND WITH TACK WELDER AT

SHEETMETAL SHOP PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE #3

\* HULL 418

\* DRAWING 501-292

\* V2-92008

\* V6-1951

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND

\* CLAMP COLLAR TO SQ2RND &TACKWELD

FITTER BEGINS AT WORKTABLE

1	MOUE VISEGRIPS AND SHEETMETAL2 FROM WORKTABLE TO	
	WELDOUT	
	A1 B0 G1 A54 B3 P1 A0 1.00	600.
2	POSITION SHEETMETAL2 FROM WELDOUT [WELDTABLE] TO	
	SHEETMETAL AT WELDTABLE WITH 4 STEPS	
	A1 B0 G1 A6 B3 P6 A0 1.00	170.
3	GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING	
	VISEGRIFS AND ASIDE PF 4 ( 4 5 6 7 )	
	A54 B3 G1 (A1 R0 P3 C1 )A1 B0 P1 A0 (4) 1.00	800.
4	OPERATE TACKWELDER PROCESS F 10	
	A1 B0 G1 M6 X3 I0 A0 10.00 1	100.
5	MOUE SHEETMETAL2 AND VISEGRIPS FROM WELDOUT TO	
	WORKTABLE	
	A1 B0 G1 A54 B3 P1 A0 1.00	600.

TOTAL TMU 3270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,020

## 246 KNU 141.51

	9,101) 9*W01 SQ2RND.M37 WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP		
	LDING BOOTH		
R	SQUARE TO ROUND  WELDING NASSCO SHEETMETAL SHAPE 3  * 11 GAUGE GALV. SHEETMETAL  * 8'X8' TO 5'DIAMETER 9'L SQUARE TO ROUND,  * WELDING DONE IN WELD BOOTH AREA  * WELDOR PERFORMS WORK  * FITTER TRANSPORTS SHEETMETAL	L-83	
	FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE. WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P3 A0 FITTER MOUE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
3	A1 B0 G1 A131B3 F1 A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
4	A1 B0 G1 A6 B0 F3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
5	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 80 G1 M1 X0 I0 A32 WELDOR PUSH GAS-HOUP-SWITCH FROM OFF AT WELDMACHINES TO	1.00	370.
	ON AT WELDMACHINES A1 B0 G1 M1 X0 I0 A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1		
	WRIST-TURN USING HAND	1.00	70.
7	A1 B0 G1 A1 B0 P1 F3 A0 B0 F0 A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDHACHINES	1.00	60.
8	A1 B0 G1 M3 X0 I0 A1 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	140.
	TO SHEETMETAL ASSEMBLY AT WELDTABLE  A3 B3 G1 A1 B0 P6 A0	1.00	130.
	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS  Al B0 G1 M1 X10 I0 A0	3.00	270.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3	1.00	40.
11	A1 B0 G1 A1 B0 P6 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR	1.00	10.
12	A1 B0 G1 M1 X0 I0 A1 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	3.00	450.
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3  Al B0 G1 A1 B6 P6 A0	6.00	5340.
13	WELDOR OPERATE WELD STINGER-BUTTON1 PROCESS F 6 A1 B0 G1 M6 X81 I0 A0	1.00	40.
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR Al BO G1 M1 X0 IO A1		
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIRERUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7	1.00	1540.
	A1 B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (50) 6 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2	2.00	220.
17	A1 B0 G1 A6 B0 P3 A0 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE		

TOTAL TMU 11860.

File Description ? WELD SQUARE TO ROUND
Output to line-Printer <Y or N> ?

File Description ? RIVET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

( 39, 3) FIT .W11 SQ2RND.M38

RIVET SHEETMETAL FOR SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP

OFG: 4 O8-JUL-83

TOTAL TMU

PER, SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE #3

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL \* 8'X8' TO 5'DIA. 9'L SQUARE TO ROUND
- \* SEAL RIVET SEAM WITH SEALANT
- \* SEAL RIVET HEADS WITH SEALANT

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
	Al BO G1 A6 80 P6 A0	2.00	280.
2	MARK-RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7	2.00	200.
	Al BO G1 (Al BO P1 R3 )Al EO P1 AO (12)	1.00	640.
3	OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 12		
	Al BO G1 M6 X6 IO AO	12.00	1680.
4	POSITION RIVETS FROM WORKTABLE TO SHEETHETAL AT WORKTABLE F 12		
	Al BO G1 A1 EO P6 AO	12.00	1080.
5	OPERATE RIVETGUN ON SHEETMETAL PROCESS F 12		
	A1 B0 G1 M6 X3 I0 A0	12.00	1320.
6	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING		
	CAULKINGGUN AND ASIDE PF 6 ( 4 5 6 7 )		
	A1 B0 G1 (A1 E0 P3 C1 )A1 B0 P1 A0 (6)	1.00	340.
7	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

5440.

# 9-1/2 X 13-1/2" to 12"DIA. X 18"16. SQUARE TO ROUND

FAB	76360	46 MIN.	
MARK OUF	23390	14 MIN.	
WELD	18260	11 MIN.	
TOTAL	118010	71 MIN	

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

#### Output to line-printer <Y or N> ? N

39, 3)

FIT

,W04 S Q 2 R N D . M O 1 MOVE SHEETMETAL FOR MARK OUT AT SHEETHETAL SHOP

OFG: 4 28-FEB-83 PER 2 SQUARE TO ROUNDS HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* '6-703
- \* 20 GAUGE SHEETMETAL
- \* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA, 8'L

FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS

	WORKER WITH TO DIELD								
	I	A1 E0	G1	A67	В0	P1	A0	1.00	700.
2	READ SKETCH AT WORKTABLE 5	59 WORI	DS						
	A0 B0 G0 A0 I	B0 P0	T32	A0	В0	ΡO	A0	1.00	320.
3	MOVE CART FROM WORKTABLE	TO SHE	ETMET.	AL-S	rorac	ΞE			
	I	A1 B0	G1	A152	2B0	Ρ1	A0	1.00	1550.
4	PLACE 20 GAUGED-SHEETMETAL	FROM	SHEET	META	LS	TORA(	GE TO		
	CART AT SHEETMETAL-STORAG	ΞE							
		A1 80	G1	A1	ΕO	P3	A0	1.00	60.
5	MOVE CART FROM SHEETMETAL	-STORA	GE TO	WOR	KTABI	ĹΕ			
	I	A1 S0	G1	A15	3B3	P1	A 0	1.00	1580.
6	PLACE SHEETMETAL FROM CART	T AT W	ORKTAI	BLE :	ro w	ORKT	ABLE		
	I	A1 80	G1	A1	80	Р3	A0	1.00	60.

TOTAL TMU 4270.

Type D:EM:CT:EX:T:W <or H for help> ? T SQ2RND

ZError, You have described more than one file. Consult your DIRECTORY for a full name.

#### -Total Brick CT. EX-T. W. Cary Par halas A. T. S. C. S. C. M. M. C.

File Description ? HARK OUT SQUARE TO ROUND (43)

Output to line-Printer <Y or N> ? N

(39), 3)

SO2RND.M02 ,W04

MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP

1 SOLIARE TO ROLIND

OFG: 4 24-FEB-83

PER 1 SQUARE TO ROUND

HULL 420

\*DRAWING 501-062

*	V	۲ <u> </u>	7	N	3
	v	–		v	. )

- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L
  \* HARK OUT 2 PIECES WITH 1 TEMPLATE
  FITTER BEGINS AT WORKTABLE

	1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS F 2		
2	A1 E0 G1 A10 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2	2.00	360,
3	A1 80 G1 A6 30 P6 A0 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE 1 DIGIT USING	2.00	230.
4	AWL AND ASIDE PF 10 ( 4 5 6 7 ) F 2  Al B0 G1 (Al B0 Pl R3 )Al B0 Pl A0 (10)  POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AND ASIDE	2.00	1080.
5	PF 22 (4 5 6) F 2  Al BO G1 (A1 BO P6 )AO(22)  FASTEN CPUNCH TO SHEETMETAL ON WORKTABLE 1 STRIKE USING	2.00	3120.
6	HAMMER AND ASIDE PF 22 ( 4 5 6 7 ) F 2 A1 E0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (22) REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	2.00	1340.
7	F 6 Al BO G1 A1 BO P1 A0 REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO	6.00	240.
	WORKTABLE F 2 A1 B0 G1 A1 B0 P1 A0	2,00	80.
8	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2  A1 B0 G1 A1 B0 P6 A0	2,00	180.
9	MARK LINES ON SHEETMETAL WITH STRAIGHTEDGE AT WORKTABLE 16 DIGITS USING AWL AND ASIDE WITH 3 STEPS PF 2 ( 4 5 6 7 ) F 2		
10	A1 B0 G1 (A1 E0 P1 R54 )A1 B0 P1 A0 (2)  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING  REDPEN AT WORKTABLE AND ASIDE PF 50 (4 5 6 7) F2	2,00	2320.
11	Al B0 G1 (A1 B0 P1 R3 )Al B0 P1 A0 (50)  HARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT  USING BLACKPEN ANF HOLD PF 56 ( 4 5 6 7 ) F 2	2.00	5080.
12	Al B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (56) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16	2.00	5640
13	DIGITS USING BLACKPEN AND ASIDE PF 2 ( 4 5 6 7 ) F 2  Al B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (2)  PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE	2.00	2320.
	WITH 6 STEPS A1 B0 G1 A10 B0 P3 A0	1.00	150,
14	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR A1 B0 G1 A67 B0 p1 A0	1.00	700,
	TOTAL TM		23390.
Typ	e D,EM,CT,EX,T,W <or for="" h="" help=""> ?</or>	<u> </u>	2=

T SAZEND. MOI Total Ja work Sheet 80100 TML

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (SQ2RND)

Output to line-printer <Y or N> ? N

33, 3)

FIT .W04 SQ2RND.M01

MOVE SHEETMETAL FOR MARK OUT AT SHEETMETAL SHOP

PER 2 SQUARE TO ROUNDS OFG: 4 23-FEB-83

HULL 420

\* DRAWING 501-062

\* V2-62003

\* V 6 - 7 0 3

\* 20 GAUGE SHEETMETAL

\* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L

FITTER BEGINS AT WORKTABLE

1 MOVE TEMPLATES AND SKETCH FROM TEMPLATE RACK TO WORKTABLE WITH 40 STEPS

^	A1 80 G1 A67 B0 $p_{\perp}^{1}$ A0	1.00	700.
2	READ SKETCH AT WORKTABLE 59 WORDS		
	AO BO GO AO BO PO T32 AO BO PO AO	1.00	320.
3	MOUE CART FROM WORKTABLE TO SHEETMETAL-STORAGE		
	A1 E0 G1 A152E0 P1 A0	1.00	1550.
4	PLACE 20 GAUGED-SHEETMETAL FROM SHEETMETAL-STORAGE TO		
	CART AT SHEETMETAL-STORAGE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
5	MOVE CART FROM SHEETMETAL-STORAGE TO WORKTABLE		
	A1 B0 G1 A152B3 P1 A0	1.00	1550.
	6 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE AD BO P3 AO		
	AI BU GI AI BU P3 AU	1.00	60.

TOTAL THU 4270.

Type D, EM, CT, EX, T, W <or H for help> ?

## File Description ? MARK OUT SQUARE TO ROUND (43)

## Output to line-Printer <Y or N> ? N

3	9	,	3	)
_	-	,	_	,

3	9,3)		
	.W04 SQ2RND.M02 MARK OUT SHEETMETAL WITH TEMPLATE AT SHEETMETAL SHOP		
PER	1 SQUARE TO ROUND OFG: 4 24-FE	B-83	
	HULL 420 * DRAWING 501-062		
	* V2-62003 * V6-703		
	* 20 GAUGE GALV. SHEETMETAL		
	* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA, 18'L * MARK OUT 2 PIECES WITH 1 TEMPLATE		
	FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT		
1	WORKTABLE WITH 5 STEPS F 2		
2	A1 B0 01 A10 B0 P6 A3 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT	2.00	360.
	WORKTABLE WITH 4 STEPS F 2		
3	A1 B0 G1 A6 B0 P6 A0 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE 1 DIGIT USING	2.00	230.
	AWL AND ASIDE PF 10 ( 4 5 6 7 ) F 2	0.00	1020
4	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AND ASIDE	2,00	1030.
	PF 22 ( 4 5 6 ) F 2	2,00	3120.
5	A1 B0 G1 (A1 B0 P6 )A0 (22) 2,0 FASTEN CPUNCH TO SHEETMETAL ON WORKTABLE 1 STRIKE USING	2,00	3120.
	HAMMER AND ASIDE PF 22 ( 4 5 6 7 ) F 2 A1 D0 G1 (A1 B0 P0 F3 )A1 E0 P1 A0 (22)2.0	2.00	1340.
6	REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	2.00	1340.
	F 4 A1 E0 G1 A1 B0 P1 A0	4.00	240.
7	REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO		
	WORKTABLE F 2 A1 B0 G1 A1 B0 P1 A0	2.00	30.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	130.
9	MARK LINES ON SHEETMETAL WITH STRAIGHTEDGE AT WORKTABLE 16 DIGITS USING AWL AND ASIDE WITH 3 STEPS PF 2 ( 4 5		
	67) F2	5 00	2320.
10	A1 B0 G1 (A1 B0 P1 R54 )A1 B0 P1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	2.00	2020.
	REDPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 ) F 2 Al B0 G1 (A1 B0 Pl R3 )Al B0 Pl A0 (50)	2.00	5080.
11	MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT	2.00	7090+
	USING BLACKPEN ANF HOLD PF 56 ( 4 5 6 7 ) F 2  BO G1 (A1 BO F1 R3 )AO BO PO AO (56)	2,00	5640.
12	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16	2,00	30-07
	DIGITS USING BLACKPEN AND ASIDE PF 2 ( 4 5 6 7 ) F 2 A1 B0 G1 (A1 B0 P1 R54 )A1 )B0 P1 A0 (2)	2.00	2320.
13	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 6 STEPS A1 B0 G1 A10 B0 P3 A0	1.00	150,

TOTAL TMU 23390.

Type D, EM, CT, EX, T, W <or H for help> ?

File Description ? SHEAR OUTLINE OF SQUARE TO ROUND (#3)
Output to Line-Printer <Y or N> ? N

( 39, 3)

FIT . W11 SQ2RND.M03

SHEAR SHEETMETAL-OUTLINE OF SQ2RND (#3) ON 20 GAUGE SHEETMETAL WITH SMALL SHEAR AT SHEETMETAL SHOP
PER SQUARE TO ROUND OFG: 4 08-JUL-83

NASSCO SHEETMETAL PART # 3 ( FROM HULL 420 )

- \* DRAWING 501-062
- \* V2-62003
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA. 18'L
- \* V6-703

FITTER BEGINS AT SMALLSHEAR

1	POSITION 4X8 SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR F 2	
	A1 B0 G1 A1 E0 P6 A0 2.00	180.
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL2 PROCESS	
	A1 B0 G1 M1 X6 I0 A0 1.00	90.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR F 6	
	A1 B0 G1 A1 E0 P6 A0 6.00	540.
4	PUSH FOOTPEDAL AT SMALLSHEAR CUTTING LINES ON	
	SHEETMETAL2 PROCESS F 6	
	A1 B0 G1 M1 X6 I0 A0 6.00	540.
5	PLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR	
•	WITH 16 STEPS PBEND	
	A1 B0 G1 A32 B3 P3 A0 1.00	400.
6	MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTAPIG	
-	A1 B0 G1 A67 B3 P1 A0 1.00	730.
	TOTAL TMU	2480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### T SQ2RND.MO4

File Description ? SHEAR SQUARE TO ROUND RADIUS LINES & CORNERS
Output to line-printer <Y or N> ? N

**39, 3)**FIT \*W04 SQ2RND.M04

SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH UNI-SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFG: 4 28-FEB-83

HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* V6-703
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:9 1/2'X13 1/2'TO 12'DIA.18'L

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE A1 E0 G1 A1 B0 P3 A0	1.00	60.
2	CUT LINES ON SHEETMETAL AT WORKTABLE 11 CUTS USING UNISHEAR AND ASIDE PROCESS PF 11 ( 4 5 6 7 )		
_	A1 B0 G1 (A1 B0 F3 C16 )A1 B0 P1 A0 (11)	1.00	2240.
3	MOVE TEMPLATE FROM WORKTABLE TO WORKTABLE  A1 B0 G1 A1 E0 P1 A0	1.00	40.
4	MARK RADIUS ON TEMPLATE PAPER AT WORKTABLE 16 DIGITS USING DIVIDERS AND ASIDE	1.00	40.
	A1 B0 G1 A1 E0 P1 R54 A1 B0 P1 A0	1.00	600.
5	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	000.
	STEEL-TAPE AT WORKTABLE AND ASIDE		
	A1 80 G1 A1 B0 P1 M32 A1 B0 P1 A0	1.00	380.
ક	CUT SHEETMETAL COLLAR AT WORKTABLE 2 CUTS USING SNIPS		
	AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
7	A1 E0 01 (A1 E0 P3 C3 )A1 E0 P1 A0 (2)	1.00	130.
/	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE  A1 F.O G1 A1 BO P3 A0	1.00	60.
8	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LEAFBRAKE	T+00	00.
J	Al BO G1 A81 BO P1 A0	1.00	840.

TOTAL TMU 4400.

Type D, EM, CT, EX, T, W <or H for help> ?

File Description ? FORM SQUARE TO ROUND (#3) RADIUS

OutPut to line-Printer <Y or N> ? N

39, 3)

FIT ,wo4 SQ2RND .MO5

FORM SQUARE TO ROUND (#3) ON 20 GAUGE SHEETMETAL WITH LEAFBRAKE

AT SHEETMETAL SHOP

PER SQUARE TO ROUND DFG: 4 2B-FEB-83

HULL 420

\* DRAWING 501-062

\* V2-62003

\* V6-703

\* 20 GAUGE GALV, SHEETMETAL

\* DIMENSIONS:9 1/2'Xl3 1/2 TO 12DIA 18'L

FITTER BEGINS AT LEAFBRAKE

1	POSITION	SHE	ETMETAL2	FROM	CART	AT	LEAFBRAKE	TO	
	LEAFBRAK	E F	60						

	LEAFBRAKE F 60		
	Al BO G1 A1 BO P6 A0	60 . 00	5400.
2	POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO LEAFBRAKE F 60		
	Al BO G1 Al BO P6 AO	60.00	5400.
3	OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60		
	Al BO G1 MS X16 IO AO	60,00	14400.
4	OPERATE LEAFBRAKE-LEVER AT LEAFBRAKE PROCESS F 60	60.00	
_	Al BO G1 M6 X16 IO AO	60,00	14400.
5	PLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE	1.00	60.
1	Al BO G1 Al PO P3 AO	1.00	9V+
4	MOUE CART FROM LEAFBRAKE TO ROLLER  Al BO G1 A32 BO P1 A0	1.00	3 5 0
7	PLACE HAMMER FROM WORKTABLE TO CART AT WORKTABLE	1.00	3 3 0
/	A54 B3 G1 A1 B0 P3 A0	1.00	620
	ANA DO GI AL DO EN AU	±.00	0 2 0

TOTAL TMU 40630.

Type D.EM.CT.EX.T.W (or H for help) ?

File Description ? FORM SQUARE TO ROUND DIAMETER

Output to line-printer <Y or N> ? N

39, 3)

FIT .WO4 SR2RND • FR # B

FORM SQUARE TO ROUND (#3). WITH ROLLER (ROLL FORMER) AT SHEETMETAL

SHOP

PER SQUARE TO ROUND (#3)

HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* V6-703
- \* 20 GAUGE GALV, SHEETMETAL
- \* DIMENSIONS:9 1/2X13 1/2'T012'DIA,18L

FITTER BEGINS AT ROLLER

1	POSITION	SHEETMETAL	FROM	CART	AT	ROLLER	TO	ROLL	FORMER
AT ROLLER									

	Al BO G1 Al BO P6 AO	1.00	90.
2	FASTEN ( KINK ) SHEETMETAL2 TO ROLLER AT ROLL FORMER 3		
	STRIKES USING HAMMER AND ASIDE PF 2 ( 4 5 65 7 )		
	A54 B3 G1 (A54 B0 PO F6 )A1 B0 P1 A0 (2)	1.00	1800.
3	FASTEN ( ROLLS ) NUT TO SHEETMETAL AT ROLLER 5		
	WRIST-STROKES USING HAND F 2		
	Al BO G1 Al BO P1 F16 AO BO PO AO	2.00	400.

4 OPERATE ROLLER-BUTTON AT ROLLER PROCESS F 4

Al B0 G1 MS X96 I0 A3 4.00 4160.

THE BUT GIT MS A90 TO AS 4.00 410 TO 5 PLACE SHEETMETAL2 FROM ROLLER ( ROLL FORMER ) TO CART

AT ROLLER WITH 8 STEPS

Al B0 G1 A16 B0 P3 A0 1.00 210. 6 MOUE CART WITH SHEETMETAL2 FROM ROLLER ( ROLL FORMER )

TO WORKTABLE

Al B0 G1 A54 B3 P1 A0

OFG: 4 28-FEB-83

TOTAL TMU 7250.

1.00

600.

Type D, EM, CT, EX, T, W (or H for help) ?

## File Description ? ASSEMBLE SQUARE TO ROUND (#3)

Output to line-Printer <Y or N> ? N

TABLE )

FIT	SQ2RND.MO7  ASSEMBLE SQUARE TO ROUND (#3) WITH RIVET GUN AT SHEETMET  SQUARE TO ROUND (#3) DFG: 4 28-FE  HULL 420  * DRAWING 501-062  * V2-62003  * U6-703  * 20 GAUGE GALV, SHEETMETAL  * DIMENSIONS:91/2'X131/2'TO 12'DIA.X18'L		
	FITTER BEGINS AT WORKTABLE		
1	GET+PLACE SHEETMEETAL2 FROM CART AT WORKTABLE 4 STEPS TO WORKTABLE WITH 4 STEPS		
2	A.5 B0 G3 A6 B0 P3 A0 INSPECT SHEETMETAL RADIUS 6 POINTS USING RADIUS TEMPLATE AND ASIDE	1.00	180.
3	A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0 FASTEN ( FORM ) SHEETMETAL AT WORKTABLE 12 STRIKES	1.00	100.
4	USING HAMMER AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F24 )A1 BO P1 A0 (2)	1.00	540.
	POSITION SHEETMETAL FROM WORKTABLE TO WORKTARLE  Al B0 G1 Al B0 P6 A0	1.00	90.
5	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )	1 00	
5	A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2) GET+POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE	1.00	140.
7	Al B0 G3 Al B0 P6 A0 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE AND ASIDE PROCESS F 4	1.00	110.
0	Al BO G1 MS X6 IO AO	4.00	5.50,
	GET+POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE Al B0 G3 Al B0 P6 A0	1.00	110.
9	OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 4  Al B0 G1 M6 X3 I0 A0	4.00	440.
10	FITTER MOUE FLANGE FROM FLANGEAREA TO WORKTABLE A152B0 G1 A152B3 P1 A0	1.00	30901
11	GET+PLACE SHEETMETAL ( FLANGE COLLAR ) FROM WORKTABLE TO SHEETMETAL ( TRANSFORMER COLLAR ) AT WORKTABLE WITH 5 STEPS	_,,,	00702
12	Al B0 G3 A10 PO P3 A0 MARK SHEETMETAL ( FLANGE COLLAR ) AT WORKTABLE 16 DIGITS USING AWL AND ASIDE	1.00	170.
13	B0 G1 B0 P1 R54 A1 B0 P1 A0 CUT SHEETMETAL ( FLANGE COLLAR ) AT WORKTABLE 4 CUTS	1.00	600.
14	USING SNIPS AT WORKTABLE AND ASIDE Al B0 G1 Al PO P3 C6 Al B0 P1 A0 GET+PLACE SHEETMETAL AND FLANGE FROM WORKTAELE TO CART	1.00	140
15	AT WORKTABLE WITH 8 STEPS  Al	1.00	230.

Al B0 G1 A54 B3 P1 A0 1.00

600.

gpe D.EM.CT.EX.T.W <or H for help> ?

61,870

## 1 SUZKNU.MOB

File Description ? TACK WELD COLLAR TO SQUARE TO Round (#3)

Output to line-printer <y n="" or=""> ? N</y>	
PIT , w04 sq2RND• M	
TACK WELD COLLAR ON SQUARE TO ROUN SHEETMETAL SHOP	D (#3) WITH TACKWELDER AT
PER SQUARE TO ROUND HULL 420  * DRAWING 501-062  * V2-62003  * V6-703  * 20 GAUGE GALV. SHEETMETAL	OFG: 4 28-FEB-83
* DIMENSIONS:9 1/2X13 1/2TO 12'DIA * WELDING OPERATIONS IN MWELD PROC FITTER BEGINS AT WELDOUT	
1 MOUE SHEETMETAL FROM CART 4 STEPS WELDOUT (TABLE ) WITH 4 STEPS	AT WELDOUT TO  AS B0 P1 A0 1.00 140.
2 PLACE SHEETMETAL2 ( COLLAR ) FROM SHEETMETAL ( TRANSFORMER AT WELDO	WELDOUT ( TABLE ) TO DUT ( TABLE ) WITH 6
3 GRIP SHEETMETAL2 AT WELDOUT ( TABL) AT WELDOUT AND ASIDE PF 2 ( 4 5 6	7 )
Al B0 G1 (A1 B0 P3 C) 4 POSITION TACKWELDER FROM WELDOUT T WELDOUT F 10	) A1 B0 P1 A0 (2) 1.00 140. O SHEETMETAL AT
Al BO G1 5 OPERATE TACKWELDER 'ON SHEETMETAL A	
10 Al BO G 6 REPLACE SHEETMETAL FROM WELDOUT (	
WELDOUT WITH 8 STEPS Al B0 G1	
7 MOVE CART WITH SHEETMETAL 2 FROM WE: Al BO GI	
	TOTAL TMU 3240.

Type D,EM,CT,EX,T,W <or H for help> ?

65,110

Please input file <SQ2RND.M09>. ?

le Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39,101)

WELD .WO1 SQ2RND.MO9

WELD SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP

WELDING BOOTH

PER SQUARE TO ROUND OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 3

\* HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* V6-703
- \* 20 GAUGE GALV. SHEETMETAL
- \* 9 1/2.X13 1/3' TO 12' DIAMETER X 18'L
- \* WELDING DONE IN WELD BOOTH AREA
- \* WELDOR PERFORMS WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CAR AT WORKTABLE WITH 4 STEPS F 2		
0	Al BO G1 A6 BO P3 A0	2.00	220.
2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE  Al B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	2370.
4	Al B0 G1 A6 B0 P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFFF AT	2.00	220.
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
_	A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	Al BO G1 MI XO IO Al	1.00	40.
4	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	1.00	10.
	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	Al BO G1 M3 XO IO Al	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE		
•	A3 B3 G1 A1 B0 B0 P6 A0	1.00	140.
9	MEEDON TOOM THILL DITTIENCE DITTIES ON THOOLOG	1 00	120
1 0	Al B0 G1 Ml X10 IO A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	1.00	130.
10	ASSEMBLY AT WELDTABLE F 4		
	Al BO G1 Al EO P6 AO	6.00	540.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6		
	Al BO G1 Ml XO IO Al	6.00	240.
12	W		
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4	<i>c</i> 00	000
	Al B0 G1 Al B6 P6 A0	6.00	900.

ار مادور دودرد ما بال

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 12		
Al B0 G1 M6 X81 IO A0	12.00	10680.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
Al BO G1 Ml XO IO Al	6.00	240.
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
12 ( 4 5 6 7 )		
Al BO G1 (A1 BO P1 C10 )A1 BO P1 AO (12)	1000	1480.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
WELDTABLE WITH 4 STEPS F 2		
Al B0 G1 A6 B0 P3 A0	2.00	220.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE		
Al B0 G1 A131BO P1 A0	1.00	1340.
TOTAL TN	⁄IU	18260.

File Description ? WELD SQUARE TO ROUND

Output to line-printer <Y or N> ? €

### File Description ? RIVET SQUARE TO ROUND (#3)

File Description ? RIVET SQUARE TO ROUND (#3)
Output to line-printer <y n="" or=""> ? N</y>
<b>39, 3</b> ) FIT .wo4 SQ2RND,MO9
RIVET SQUARE TO ROUND (#3) WITH RIVET GUN AT SHEETMETAL SHOP
PER SQUARE TO ROUND (#3)  HULL 420  OFG: 4 28-FEB-83

- \* DRAWING 501-062
- \* V2-62003
- \* V6-703
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:9 1/2X13 1/2TO 12'DIAX18"L
- \* WELDING OPERATIONS IN MWELD FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH.8 STEPS		~
	Al BO G1 A16 BO P3 AO	1.00	210.
2	MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE FROM		
	RIVET-HOLE-GUIDE 1 DIGIT USING BLACKPEN AT WORKTABLE		
	AND ASIDE PF 16 ( 4 5 4 7 )		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (16)	1.00	840.
3	POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE F 16		
	Al BO G1 Al BO P6 AO	16,00	1440.
4	OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F		
	16		
	Al BO Gl M6 X6 IO AO	16.00	2240.
5	POSITION RIVETGUN TO SHEETMETAL AT WORKTABLE F 16		
	Al BO G1 Al BO P6 AO	16.00	1440.
4	OPERATE RIUETGUN ON SHEETMETAL AT WORKTABLE PROCESS F		
	1 6		
	Al BO G1 M6 X3 IO AO	16.00	1740.
7	POSITION CAULKINGGUN TO SHEETMETAL AT WORKTABLE F 2		
	Al BO G1 Al BO P6 AO	2.00	180.
3	GRIP SEALANT TO SHEETMETAL DIFFICULT USING CAULKINGGUN		
	AND ASIDE PF 25 (45467 )		
	A1 B0 G1 (A1 B0 P10 C1 )A1 B0 P1 A0 (25)	1.00	3040.
9	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		
	AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.

TOTAL TMU 11250.

Type D, EM, CT, EX, T, W (or H for help) ?

76,3.60

SHEET METAL SHAPE #3

## 14"x 12" to 13"DIA. SQUARE TO ROUND

FAB	35550	21. MIN	
MARK out	20160	12.MIN	
WELD	36850	22 MIN.	
TOTAL TMU:	92560	56 MIN	

## File Description ? MARK OUT SHEETMETAL FOR SQUARE TO ROUND

## Quatrut to line-printer $\langle Y \text{ or } N \rangle$ ? N

~			
	( 39 FIT	7, 1) • W11 SQ2RND.M50	
	SHOP	MARK OUT SHEETMETAL FOR SQUARE TO ROUND WITH AWL AT SHEETMETAL	
		SQUARE TO ROUND  NASSCO SHEETMETAL SHAPE 3  * 11 GAUGE GALV. SHEETMETAL  * 14'X12'X13' DIAMETER SQUARE TO ROUND  * MARK OUT WITH TEMPLATE  * MARK OUT COLLAR WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE	
	1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2  Al BO G1 A6 B0 P6 A0 2.00	280.
	2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 4	
	3	Al B0 G1 A6 B0 P6 A0 4.00  MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7)	560.
	4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 34	1120.
	5	Al B0 G1 A3 B0 P6 A0 34.00 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 34 1 4 5 6 7 )	3740.
	6		1400.
	7	Al B0 G1 A6 B0 P3 A0 4.00 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	440.
	8	Al B0 G1 A6 B0 P3 A0 2.00  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	220.
	9		1120.
	10		4940,
	11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4567)	2640.
	12	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (2) 1.00 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	720.
_	13	USING AWL AT WORKTABLE AND ASIDE PF 2 ('4'5 6'7') Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (2) 1.00 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1 4 0

5Q ZRNO	M	5	0
---------	---	---	---

		WORKTABLE F 2		
		Al BO G1 Al BO P6 AO	2.00	180.
	14	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
	15	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS  USING REDPEN AT WORKTABLE AND ASIDE	1.00	400.
•	16		1.00	220.
	17	ASIDE PF 6 ( 4 5 6 7 )	1.00	340.
	18	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	640.
	1.0		2.00	220.
	19	MOVE CART FROM WORKTABLE TO 14FT.SHEAR AL E0 G1 A81 B0 P1 A0	1.00	840.
		TOTAL TMU	20	160.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,w <or H for help> ?

#### File Description ? SHEAR SHEETMETAL FOR SQUARE ID ROUND

#### Dutrut to line-printer <Y or N> ? N

וט ביע,	-20 to line printer (1 of N). N	
FIT SHEE	9, 1) .W11 SQ2RND,M51 SHEAR SHEETMETAL FOR SQUARE TO ROUND WITH 14FT, SHEAR AT ETMETAL SHOP SQUARE TO ROUND OFG: 4 25-MAY-83 NASSCO SHEETMETAL SHAPE 3 * 11 GAUGE GALV. SHEETMETAL * 14'X12'X13' DIAMETER SQUARE TO ROOUND * SHEAR 1 1/2' STRIP FOR COLLAR FITTER BEGINS AT 14FT.SHEAR	
1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2	
2		30.
۷	10011 1111701111111 10011111111 11100100 1 1	20.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 13	
	Al BO G1 A3 BO P6 A0 13.00 143	30,
4	PUSH 14FT, SHEAR-FOOTPEDAL. PROCESS F 16	
_		50.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 4 STEPS	
		10.
6	MOVE CART FROM 14FT.SHEAR TO WORKTABLE	7.0
	Al B0 G1 A81 B3 P1 A0 1.00 87	70.

TOTAL TMU 3770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? CUT RADIUS FOR SQUARE TO ROUND

### @Output to line-printer <Y or N> ? N

(39,1)

FIT .W11 SQ2RND.M52

CUT RADIUS FOR SQUARE TO ROUND WITH SABER-SAW AT SHEETMETAL SHOP PER SQUARE TO ROUND OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 3

\* 11 GAUGE GALV. SHEETMETAL

\* 14'X12'X13' DIAMETER SQUARE TO ROUND \* CUT RADIUS AND CORNERS WITH UNI-SHEAR

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM &ART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

	Al BO G1 A6 HO P3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE SABER-SAW AT WORKTABLE PROCESS F 4		
4	Al BO G1 M6 X67 IO AO	4.00	3000.
4	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTAB	LE	
	WITH 4 STEPS	1 00	110
_	Al B0 G1 A6 B0 P3 A0 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE	1.00	110.
5	Al HO G1 A96 BO P1 A0	1.00	990
	AI IIU GI AJU BU PI AU	1.00	990.

TOTAL TMU 6290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10,06U

#### File Description ? BEND RADIUS FOR SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 SQ2RND.M53

BEND RADIUS FOR SQUARE TO ROUND WITH 14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP

PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE 3

- \* 11 GAUGE GALV. SHEETMETAL
- \* 14'X12'X13' DIAMETER SQUARE TO ROUND \* BEND RADIUS FOR SQUARE TO ROUND FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE		
	TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS		
	Al BO G1 M1 X24 IO AO	1.00	270.
3	POSITION SHEETMETAL2 FROM 14FTHYDROPRESSBRAKE TO		
	14FTHYDROPRESSBRAKE WITH 3 STEPS F 31		
	Al BO G1 A6 BO P6 A0	31.00	4340.
4	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 31		
	Al BO G1 M1 X24 IO AO	31.00	8370.
5	REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT		
	14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
6	MOVE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER		
	Al B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 14050.

OFG: 4 25-MAY-83

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

24,110

#### File Description ? FORM COLLAR FOR SQUARE TO ROUND

#### 🚰 utput to line-printer <Y or N> ? N

( 39, 1)

FIT ● W11 SQ2RND.M54

FORM COLLAR FOR SQUARE TO ROUND WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP OFG: 4 25-MAY-83

PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE 3

- \* 11 GAUGE GALV. SHEETMETAL
- \* 14'X12'X13' DIAMETER SQUARE TO ROUND
- \* ROLL UP 13'DIAMETER COLLAR FOR--
- \* --SQUARE TO ROUND
- \* CHECK DIAMETER WITH RADIUS ON SQUARE--
- \* --TO ROOUND
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD. . ..SEE SQ2RND.M55

FITTER BEGINS AT ROLLER

1	POSITION SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	FASTEN NUT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3 WRIST-TURNS USING HAND F 4		
	A1 B0 G1 A54 B3 P1 F6 A0 B0 P0 A0	4.00	2640.
3	PUSH ROLLER-BUTTON PROCESS F 4		
Ū	A54 B0 G1 M1 X96 IO A0	4.00	6080.
4		1.00	
	A54 B3 G1 A3 B0 P6 A0	2.00	1340.
5	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS		
	A54 B0 G1 A6 B0 P3 A0	1.00	640.
6	MOUE CART FROM ROLLER TO WORKTABLE	· · ·	
	Al B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

35,550

11440.

TOTAL TMU

#### Please input file <SQ2RND.M55> ?

'le Description ? WELD SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39,101)

WELD ● W01 SR2RND.M55

WELD SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH
PER SQUARE TO. ROUND

OFG: 4 21-JUL-83

PER SQUARE TO. ROUND
WELDING NASSCO SHEETMETAL SHAPE 3

\* 11 GAUGE GALV. SHEETMETAL

- \* 14X12X13'DIAMETER SQUARE TO ROUND X20'L
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

	FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
0	Al BO G1 A6 BO P3 A0	2.00	220.
۷	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE  Al B0 G1 A131B3 F1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO		
	WELDTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220 .
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF Al-	2.00	220 .
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	1 00	
5	A3 B0 G1 Ml X0 IO A32 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370.
Ū	WELDMACHINES TO ON AT WELDMACHINES		
_	Al BO G1 M3 XO IO Al	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
	A3 B3 G1 A1 B0 F6 A0	2.00	2 8 0 ●
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2		
Ω	Al B0 G1 Ml X10 IO A0 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1	2.00	260.
O	WRIST-TURN USING HAND F 17		
	Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0	17.00	1190.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 17	17 00	400
10	Al BO G1 Ml XO IO Al WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO	17.00	680.
	SHEETMETAL ASSEMBLY AT WELDTABLE F 17		
	Al BO G1 Al BO F6 AO	17.00	1530.
11	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 13		
	Al BO G1 M6 X173IO AO	13.00	23530.
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR	1 00	4.0
13	Al BO G1 M1 XO IO Al WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT	1.00	40.
13	WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND		
	ASIDE PF 13 ( 4 5 6 7 )		
1 /	Al B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (13) WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10	1.00	2230.
14	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	_		

#### · SUEKNU M.U. 1)

2 6 ( 4 5 6 7 )
Al BO Gl (Al BO Pl ClO )Al BO Pl AO (26) 1.00 3160.

15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS F 2
Al BO Gl A6 BO P3 AO 2.00 220.

FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
Al BO Gl Al31BO Pl AO 1.00 1340.

TOTAL TMU 36720.

File Description ? WELD SQUARE TO ROUND
Output to line-printer <Y or N> ?

# 4

# SHEET METAL SHAPE

## 15-"34" TO 12" DIA. X 22"16.

TAD	76,650	C5 MIN.
MARK OUT	15,480	9 MIN.
WELD	36010	21 MIN.
TOTAL TMU	93740	56 MIN.

#### Please in Put file < R02R0.M01> ?

File Description ? MAKE READY SHEETMETAL FOR MARK OUT (R02RO)

Output to line-printer < Y or N > ? N

(39, F I T	3) . w o 4	RO2RO	- C 74						
	MOVE SHEETMETAL FOR MARK			TO I	эонир)	WITH	I CART	AT	
SHF	ETMETAL SHOP	001 (100	JUND	10 1	(COND)	VVIII	i OAKI	Ai	
	1 4X8 SHEET (1 ROUND TO RO	UND)			01	FG: 4	03-MAR-83		
	HULL 420	•							
	* DRAWING 501-062								
	* V 2 - 6 2 0 0 3								
	* V 6 - 5 8 8								
	* 20 GAUGE GALV. SHEETMET								
	* DIMENSIONS:15 3/4'DIA T								
	* ONE 4X8 SHEET FOR ONE RO		ROUI	ND					
	FITTER BEGINS AT WORKTABLE								
	MOVE TEMPLATE AND CKETCH E	DOM TE	ADL AT	- DA	0 K T 0				
T	MOVE TEMPLATE AND SKETCH F WORKTABLE WITH 40 STEPS	RUW IEI	WPLAI	E KA	CKIU	,			
	WORKTABLE WITH 40 STEPS	1 B0	G1 A	\67	B0 F	P1 A	.0	1.00	700.
2	MOVE SKETCH TO FITTER FROM				ASIDE		.U	1.00	700.
_	A			A1		_	.0	1.00	40.
3	READ SKETCH AT WORKTABLE 5								
	A0 B0 G0 A0	B0 P0	T32	A0	BO F	9 0 A	0	1.00	320.
4	MOVE CART FROM WORKTABLE	ro shee	TMETA	L-ST	DRAGE	Ξ			
	A		•	–	BO P	1 A	0	1.00	1950.
5	PLACE GAUGED-SHEETMETAL WI								
	SHEETMETAL-STORAGE TO CAR								
_		10 B0		<b>A</b> 1	B0 F	P3 A	.0	2.00	300.
	MOVE CART WITH GAUGED-SHEET		FROM						
	SHEETMETAL-STORAGE TO WOR		0.4		D.0 -		•	4 0 0	4500
	A PLACE 20 GAUGED-SHEETMETAL		• .	A 152			.0	1.00	1580.
/	WORKTABLE WITH 8 STEPS	FRUM C	AKI	A I VV	UKKIF	ADLE	10		
	WORKTABLE WITH 8 STEPS	1 BO	G1	A16	B0 I	P3 A	n	1.00	210.
	^	1 50	31 I	110	D0 1		U	1.00	210.

TOTAL TMU

4700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help>? T

Please input file (R02R0.M02 > ?

File Description ? MARK OUT ROUND TO ROUND.

Output to line-printer < Y or N > ? N

(39, 3)

FIT .wo4

R02R0 \*\*\*\*

MARK OUT SHEETMETAL FOR ROUND TO ROUND WITH AWL AT SHEETMETAL SHOP

PER ROUND TO ROUND

OFG: 4 03-MAR-83

HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* V6-588
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:15 3/4'DIA TO A 12'DIAX22'L
- \* 1 TEMPLATE & 1 PIECE FITTER BEGINS AT WORKTABLE

1	<b>POSITION TEM</b>	PLATE FROM	M WORKTABLE	ΤO	SHEETMETAL	ΑT
	WORKTABLE	WITH 2 STE	PS			

110.
160
2280.
160
40.
0860.

A1 B0 G1 A1 B0 P1 (R54 )A1 B0 P1 A0 (20) 1.00 10860 7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT

WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 23 (7)
A1 B0 G1 A1 B0 P1 (R3 A0 B0 P0 A0 (2)

A1 B0 G1 A1 B0 P1 (R3 A0 B0 P0 A0 (23) 1.00 730.

8 FITTER MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 16 DIGITS USING BLACKPEN AND ASIDE PF 2 ( 7 )

DIGITS USING BLACKPEN AND ASIDE PF 2 (7)

A1 B0 G1 A1 B0 P1 (R54 )A1 B0 P1 A0 (2) 1.00

TOTAL TMU 15480.

1140.

#### File Description ? SHEAR ROUND TO ROUND (8 FT, SHEAR)

#### Cutput to line-printer <Y or N> ? N

(39, 3) R02R0 FIT .wo4 SHEAR SHEETMETAL FOR ROUND TO ROUND (TRANSITION) WITH SMALL SHEAR (8 FT, SHEAR) AT SHEETMETAL SHOP PER ROUND TO ROUND OFG: 4 OI-MAR-83 HULL 420

- \* DRAWING 501-062
- \* v 2 6 2 0 0 3
- \* V6-588
- \* 20 GAUGE GALV, SHEETMETAL \* DIMENSIONS: i5 3/4'DIA TO A 12'DIAX22'L FITTER BEGINS AT WORKTABLE

#### 1 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTAPLE WITH 3 STEPS

		A 1 6 B 0 P3 A0	1.00	210 .
2	MOVE CART WITH SHEETMETAL2 FROM WORK	TABLE TO SMALLSHEAR		
	A1 B0 G1	A67 B0 P1 A0	1.00	700 .
3	POSITION 4X8 SHEETMETAL FROM CART AT	SMALLSHEAR TO		
	SMALLSHEAR WITH 3 STEPS F 2			
	A1 B0 G1	Aá BO P6 A0	2.00	280.
4	PUSH FOOTPEDAL AT SMALLSHEAR CUTTING	SHEETMETAL PROCESS		
	A1 B0 G1	M1 X6 I0 A0	1.00	90.
5	POSITION SHEETMETAL3 FROM SMALLSHEAR	ΓΟ SMALLSHEAR		
	WITH 3 STEPS F 6			
	A1 B0 G1	A6 B0 P6 A0	<b>ბ</b> ₊00	840.
6	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTT	ING SHEETMETAL		
	PROCESS F 8			
	A1 B0 G1	M1 X6 I0 A0	3,00	720.
7	PLACE SHEETMETAL FROM SMALLSHEAR TO C	ART AT .SMALLSHEAR		
	WITH 16 STEPS PBEND			
	A1 B0 G1	A 3 2 B 3 P 3 A 0	1.00	400.
8	MOVE CART WITH SHEETMETAL FROM SMALLS	SHEAR TO WORKTABLE	•	
	A1 B0 G1	A67 B3 P1 A0	1,00	730.

TOTAL TMU 3970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? SHEAR ROUND TO ROUND WITH UNI-SHEAR

Output to line-printer < Y or N >. ? N

( 39, 3) R02R0 FIT . w o 4 SHEAR SHEETMETAL FOR ROUND TO ROUND WITH UNI-SHEAR AT SHEETMETAL SHUP OFG: 4 O2-MAR-83 PER ROUND TO ROUND HULL 420 \* DRAWING 501-062 \* v2-62003 \* V6-588 \* 20 GAUGE GALV. SHEETMETAL \* DIMENSIONS:15 3/4'TO 12'DIAX22'L FITTER BEGINS AT WORKTABLE 1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 6 STEPS B0 G1 A10 B0 P3 A0 1.00 150. **A**1 2 OPERATE UNISHEAR AT WORKTABLE PROCESS PF 7 (5) A1 B0 G1 M6 (X173)IO AO 1.00 12190. 3 PLACE ( ASIDE ) UNISHEAR FROM WORKTABLE TO WORKTABLE B0 G1 A1 B0 P3 A0 1.00 60. A1 4 MEASURE SHEETMETAL (FLANGE&TRANS, COLLARS) LENGTH AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 (4567) (A1 B0 P1 M32 )A1 P1 B0 Α0 (2) 1.00 720. Α1 B0 G1 5 MARK LENGTH ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 2 ( 1 2 3 4 5 6 7 ) Α1 B0 P1 R3 )A1 P1 (2) 1.00 160. (A1 B0 G1 6 CUT SHEETMETAL AT WORKTABLE 1 CUT USING SNIPS AT WORKTABLE AND ASIDE PF 2 ( 1 2 3 4 5 6 7 ) G1 A1 B0 P3 C1 )A1 B0 P1 (2) 1.00 (A1 B0 Α0 160. TOTAL TMU 13440.

Type D,EM,CT,Ew,EX,L,LD,LS,M,T,W <or H for help> ?

17,410

#### File Description ? FORM ROUND TO ROUND WITH ROLLER (ROLL FORMER)

 $_{\star C}$  Tutgut to line-printer <Y or N> ? N

( 39, 3)
FIT .wo4 RO2RO *****  FORM SHEETMETAL FOR ROUND TO ROUND WITH ROLLER (ROLL FORMER) AT
SHEETMETAL SHOP PER ROUND TO ROUND HULL 420 * DRAWING 501-062
* V2-62003 * V6-588 * 20 GAUGE GALV. SHEETMETAL
* DIMENSIONS:15 3/4'DIA TO 12'DIAX22"L * ROLLER IS ALSO ROLL FORMER FITTER BEGINS AT WORKTABLE
1 PLACE SHEETMETAL , HAMMER , CLAMP , FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110,. 2 MOVE CART WITH SHEETMETAL , HAMMER , CLAMP FROM WORKTABLE TO ROLLER
A1 B0 G1 A54 B0 F1 A0 1.00 570, 3 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110. 4 FASTEN-SHEETMETAL2 ( KINK END ) TO ROLLER 13 STRIKES
USING HAMMER AND ASIDE PF 2 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (2) 1.00 700. 5 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER
A1 B0 G1 A1 B0 P3 A0 1.00 6 FASTEN ( ROLLS ) NUT TO SHEETMETAL AT ROLLER 5 WRIST-STROKES USING HAND F 4
A1 B0 G1 A1 B0 P1 F16 A 0 B0 P0 A0 4.00 800. 7 OPERATE ROLLER-BUTTON AT ROLLER PROCESS F 4
A1 B0 G1 M6 X96 IO A0 4.00 4160. 8 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 3 STEPS
A1 B0 G1 A6 B0 P3 A0 1.00 110. 9 PLACE SHEETMETAL ( COLLAR ) FROM CART AT ROLLER TO
ROLLES WITH 3 STEPS  A1 B0 G1 A6 B0 P3 A0 1.00 110.  10 FASTEN SHEETMETAL ( KINK END ) TO ROLLER 4 STRIKES
USING HAMMER AND ASIDE PF ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (2) 1.00 260. 11 PLACE SHEETMETAL FROM ROLLER TO ROLLER F 2
A1 B0 G1 A1 B0 P3 A0 2.00 120. 12 FASTEN (ROLLS) NUT TO SHEETMETAL AT ROLLER 5
WRIST-STROKES USING HAND F 2 A1 B0 G1 A1 B0 P1 F16 A0 B0 P0 A0 2.00 400. 13 OPERATE-ROLLER-BUTTON AT ROLLER PROCESS F 8
A1 B0 G1 M6 X96 I0 A0 3.00 8320. 14 REPLACE SHEETMETAL ( COLLARS ) AND HAMMER FROM ROLLER
TO CART AT ROLLER WITH 3 STEPS  A1 B0 G1 A6 B0 P3 A0 1.00 110.  15 MOVE CART FROM ROLLER TO WELDOUT

TOTAL TMU 16670.

Type D,EM,CT,EW,EX,LS,LD,LS,M,T,W <or H for help> ?

34080

#### File Description ? TACK WELD ROUND TO ROUND

Output to line-printer < Y or N > ? N

( 39, 3) RO2RO .MO6 TACK WELD SHEETMETAL FOR ROUND TO ROUND WITH TACK WELDER AT SHEETMETAL SHOP

OFG: 4 02-MAR-33

PER ROUND TO ROUND HULL 420

- \* DRAWING 501-062
- \* V2-62003
- \* V6-588
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:15m3/4'DIA TO 12'DIAX22'L
- \* ADDITIONAL WELDING SEE MWELD

FITTER BEGINS AT WELDOUT

	FILLER REGINS AT METDOOL		
1	PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT TABLE WITH 3 STEPS		
2	A1 B0 G1 A6 B0 P3 A0	1.00	110.
	MOVE FLANGE FROM FLANGEAREA TO WELDOUT  A152BO G1 A152B3 P1 A0	1.00	3090.
3	MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT  A 5 4 B 3 G1 A54 B3 P1 A0	1.00	1160.
4	GRIP SHEETMETAL AT WELDOUT USING VISEGRIPS AT WELDOUT HAD ASIDE		
5	A1 B0 G1 A1 B0 P3 C1 A1 P0 P1 A0 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT WELDOUT F 5	1.00	90.
6	A1 B0 G1 A1 B0 P6 A0 OPERATE TACKWELDER ON SHEETMETAL AT WELDOUT PROCESS F	5.00	450.
	5 A1 B0 G1 M6 x3 I0 A0	5.00	550.
7	PLACE SHEETMETAL (COLLAR) FROM WELDOUT (TABLE) TO SHEETMETAL2 (ROUND TO ROUND) AT WELDOUT	0.00	
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
8	OPERATE TACKWELDER ON SHEETMETAL2 AT WELDOUT PROCESS F		
	A1 B0 G1 M6 X3 I0 A0	\$100	880.
9	POSITION SHEETMETAL ( FLANGE COLLAR ) FROM WELDOUT ( TABLE ) TO FLANGE AT WELDOUT		
10	A1 B0 G1 A1 B0 P6 A0 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL2 AT	1.00	90.
10	WELDOUT		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
11	OPERATE TACKWELDER ON SHEETMETALZAT WELDOUT PROCESS F		
1 2	A1 B0 G1 M6 X3 I0 A0 REPLACE SHEETMETAL , VISEGRIPS FROM WELDOUT TO CART AT	3.00	880.
12	WELDOUT		
13	A1 B0 G1 A1 B0 P3 A0 MOVE CART [VISEGRIPS AND HAMMER] FROM WELDOUT TO WORKTABLE	1.00	60.
1 /	A1 B0 G1 A54 B3 P1 A0	1.00	600.
14	PLACE CART [VISEGRIPS AND HAMMEER] FROM CART AT WORKTABLE TO WORKTABLE		

ROZRO MOG

A1 B0 G1 A1 B0 P3 A0 1.00 60.

TOTAL TMU 8170.

fspe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

42,250

### File Description ? WELD ROUND TO ROUND

### Sputput to line-printer <Y or N> ? N

( 39, 3) WELD ● W01 R02RO .M07 WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH		
PER ROUND TO ROUND OFG: 4 21-J WELDING.NASSCO SHEETMETAL SHAPE 4 * HULL 420 * DRAWING 501-062 * V2-62003	UL-83	
* V6-588  * 20 GAUGE GALV. SHEETMETAL  * 15 3/4 DIAMETER TO 12' DIAMETER X 22'LG  * WELDOR PERFORMS WORK  * FITTER TRANSPORT SHEETMETAL ASSEMBLY  FITTER BEGINS AT WORKTABLE		
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	0.00	000
Al B0 G1 A6 B0 P3 A0 2 FITTER MOUE CART FROM-WORKTABLE TO WELDTABLE	2.00	220.
Al B0 G1 A131B3 P1 A0 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
Al BO G1 A6 BO P3 A0	2.00	220.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 M1 X0 IO A32	1.00	370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
Al B0 G1 Ml X0 IO Al 6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1	1.00	40.
WRIST-TURN USING HAND  AL BO G1 Al BO P1 F3 AO BO P0 AO 7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
WELDMACHINES TO ON AT WELDMACHINES  Al BO G1 M3 X0 IO Al	1.00	60.
3 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE	1.00	00.
A3 B3 G1 A1 B0 P6 A0	1.00	140.
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAM ROCESS F 4 Al B0 G1 Ml X10 IO A0	4.00	520.
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 7	7.00	(20
Al B0 G1 Al B0 P6 A0 11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4	7.00	
Al B0 G1 M1 X0 IO Al 12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	4.00	160.
ASSEMBLY AT WELDTABLE *M(H PARTIAL BEND F 7 Al B0 G11 A1 6 P6 A0	7.00	1050.
13 OPERATE WELD STINGER-BUTTON1 PROCESS F 23  Al B0 G1 M6 X81 IO A0	28.00	24920.
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4 Al B0 G1 Ml X0 IO Al	4.00	160.

KOEKU MILL I

15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 5		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	56 (4567 )	1 00	4500
1.6	Al B0 G1 (A1 B0 P1 C6 )A1 B0 P1 A0 (56) REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT	1.00	4520.
	WELDTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE		
	Al B0 G1 A131BO P1 A0	1.00	1340.
	TOTAL TMU	J	36010.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ? }i</pre>

SHEET, METAL SHAPE

# 30 DIA. to 24"DIAX 40"LG ROUND to ROUND TRANSITION

FAB	70.340	42 MIN-
MARK out	12,260	
WELD	65,360	39 MIN.
TOTAL TMU.	1.47960	89 MIN

#### File Description ? MARK OUT ROUND TO ROUND TRANSITION

### Output to line-printer <Y or N> ? N

•			
FIT	9, 1) .W11  MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETA ROUND TO ROUND  NASSCO SHEETMETAL SHAPE 4  * 16 GAUGE GALV, SHEETMETAL  * 30'DIAMETER TO 24'DIAMETER X 40'L  * MARK OUT TRANSITION WITH TEMPLATE  * MARK OUT COLLARS WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS	1 00	140
2	Al BO G1 A6 BO P6 A0 PLACE WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3	1.00	140.
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7)	3.00	330.
4	Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (4) REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 3	1.00	760.
5	Al BO G1 A6 BO P3 AO REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS	3.00	330.
6	Al B0 G1 A6 B0 P3 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	110.
7	USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 23 ( 4 5 6 7 )	1.00	760.
8	Al BO G1 (A1 BO P1 R3 )A1 BO F1 AO (23) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	1190.
9	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	2640.
10	Al B0 G1 (A1 B0 P1 M32 )A1 B0 F1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1400,
11	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO F1 R3 )A1 BO P1 AO (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 4	1.00	340.
12	Al BO G1 A3 BO P6 AO MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	440.
13	Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (4) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	760.

USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

1	Al B0 G1 (A1 B0 4 MARK CONSTRUCTION INFORMATION WORKTABLE 1 DIGIT USING BLAC	ON SHEETMETAI	L AT	1.00	760.
MAR	ASIDE PF 14 ( 4 5 6 7 )  Al BO G1 (A1 BO :  K IDENTIFICATION ON SHEETMETA USING BLACKPEN AT WORKTABLE A	AL AT WORKTAE	BLE 1 DIGIT	,	740.
1 <b>3</b>	Al BO G1 (A1 BO 5 6 PLACE SHEETMETAL FROM WORKTAE WITH 4 STEPS F 2			2) 1.00	640.
	A1	BO G1 A6 BO	0 P3 A0	2.00	2 2 0 ●
1			30 P1 A0	1.00	700.
			TOTAL	TMU.	12260.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 R02RO .M21

SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION WITH

SMALL 8FT. SHEAR AT SHEETMETAL SHOP PER ROUND TO ROUND OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

\* 16 GAUGE GALV. SHEETMETAL \* 30'DIAMETER TO 24'DIAMETER X 40'L

\* SHEAR 1 1/2' STRIPS FOR COLLARS

FITTER BEGINS AT SMALLSHEAR

1	POSITION	SH	EETME	TΑ	L FROM	C	'ART	AT	SMALLSHEAR	TO	
	SMALLSHE	AR	WITH	4	STEPS	F	2				

	CINIDECTIC WITH I CIDE I	_								
	A.	.1 :	в0	G1	Аб	В0	рб	A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEA	AR	PROC	CESS						
	A.	1 1	В0	G1	Ml	Хб	IO	A0	1.00	90.
3	POSITION SHEETMETAL FROM S 3 STEPS F 9	SMAI	LLSH	EAR	TO S	SMALI	LSHE	AR WITH		
	A.	1 1	в0	G1	Аб	в0	рб	A0	9.00	1260.
4	PUSH FOOTPEDAL AT SMALLSHEA	AR I	PROC	ESS	F 9					
	111				Ml	Хб	IO	A0	9.00	810.
5	REPLACE SHEETMETAL FROM SM		LSHE	AR I	O C	ART A	$\mathrm{T} A$			
	SMALLSHEAR WITH 10 STEPS F	₹ 2								
	A.		-	G1		в0	Р3	A0	2.00	420.
6	MOUE CART FROM SMALLSHEAR	TO	WORK	(TABI	LΕ					
	Al	1 E	30 (	G1 .	A67	В3	F1	A0	1.00	730.

TOTAL TMU 3590,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUSES FOR ROUND TO ROUND TRANSITION output tO line-printer <Y or N> ? N

( 39, 1) FIT • W11

FIT lacktriangle W11 R02RO .M22 CUT RADIUSES FOR ROUND TO ROUND TRANSITION WITH UNI-SHEAR AT

SHEETMETAL SHOP FER ROUND TO ROUND

OFG: 4 26-MAY-83

Al B0 G1 A54 B0 F1 A0 1.00

NASSCO SHEETMETAL SHAPE 4 \* 16 GAUGE GALV. SHEETMETAL

\* 30'DIAMETER TO 24'DIAMETER X 40'L

FITTER BEGINS AT WORKTABLE

POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

	j	Al B0 G1	A6 B0	P6 A0	2.00	280.
2	MOUE UNISHEAR2 FROM TOOLRO	OOM TO WOR	KTABLE			
		A96 B0 G1	A96 B3	P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTA	ABLE PROCE	SS F 14			
		Al BO G1	M6 X17	3IO AO	14.00	25340.
4	FASTEN [FLATTEN] CORNERS	ON SHEETME	TAL AT WO	RKTABLE 3		
	STRIKES USING HAMMER AT N	WORKTABLE 2	AND ASIDE	PF 4 ( 4	5	
	67)					
	Al BO G1 (A1 )	B0 PO F6	)A1 B0	P1 A0	(4) 1.00	320.
5	REPLACE SHEETMETAL FROM	WORKTABLE	TO CART A	T WORKTAB	LE	
	WITH 4 STEPS F 2					
		Al BO G1	A6 B0	P3 A0	2.00	220.
6	MOUE CART FROM WORKTABLE	TO ROLLER				

TOTAL TMU 28700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

33290

570.

( 39, 1)  FIT .W11 R02RO .M23  FORM RADIUS FOR ROUND TO ROUND TRANSITION WITH  FOLLER (ROLL FORMER) AT SHEETMETAL SHOP  PER ROUND TO ROUND OFG: 4 26-MAY -83  NASSCO SHEETMETAL SHAPE 4  * 16 GAUGE GALV. SHEETMETAL  * 30'DIAMETER TO 24'DIAMETER X 40'L  * ROLL-UP TRANSITION AND COLLARS  FITTER BEGINS AT ROLLER	
1 PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4	
STEPS F 3  Al B0 G1 A6 B0 P3 A0 3.0	0 330.
2 MOUE MALLET FROM TOOLROOM TO ROLLER A54 B0 G1 A54 B0 P1 A0 1.0	0 1100.
3 FASTEN SHEETMETAL [KINK END] AT ROLLER TO ROLLER 1 STRIKE USING MALLET AT ROLLER AND ASIDE PF 30 ( 4 5 6	, ====
111 D0 G1 (111 D0 10 15 )111 10 11 110 (30) = 10	0 1240.
4 PLACE SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F	
Al BO G1 A3 BO P3 A0 3.0	0 240.
5 FASTEN NUT [ROLLS] TO SHEETMETAL AT WORKTABLE 3 WRIST-STROKES USING HAND WITH 2 STEPS F 10	
Al BO G1 A54 B3 F1 F10 A0 B0 P0 A0 10.0	0 7000.
6 OPERATE ROLLER-BUTTON PROCESS F 14 A54 B0 G1 M6 X96 IO A0 14.0	0 21980.
7 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH	
4 STEPS Al B0 G1 A6 B0 P3 A0 1.0	0 110.
8 MOVE CART FROM ROLLER TO WELDOUT	0 520
Al B0 G1 A67 B3 P1 A0 1.0	0 730.
	20720
TOTAL TMU	32730 .

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

65,020

#### O u t p u t line-printer <Y or N> ? N

(39, 1)

FIT .W11 R02RO .M24

TACK ROUND TO ROUND TRANSITION WITH TACK-WELDER AT SHEETMETAL

SHOF PER ROUND TO ROUND

OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 4

- \* 16 GAUGE GALV. SHEETMETAL \* 30'DIAMETER TO 24'DIAMETER X 40'L
- \* TACK WELD COLLAR TO TRANSITION
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD..SEE R02RO.M25

FITTER BEGINS AT WELDOUT

1	PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH	
	4 STEPS F 2	
	A1 B0 G1 A6 B0 P3 A0	2.00
2	MOUE UISEGRIPS FROM WORKTABLE TO WELDOUT	
	A54 B3 G1 A54 B3 P1 A0	1.00
3	POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL AT	
	WELDOUT WITH 2 STEPS F 3	
	A1 B0 G1 A3 B0 P6 A0	3.00

3.00 330. 4 GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING VISEGRIPS AT WELDOUT AND ASIDE PF 14 ( 4 5 6 7 )

(A1 B0 P3 Cl )A1 B0 F1 A0 (14) AL BO G1 1.00 740. 5 POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT F 24

Al BO G1 Al BO P6 AO 24.00 2160. 6 REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS Αl B0 G1 A6 B0 P3 A0 1.00 110. 7 MOVE CART FROM WELDOUT TO WORKTABLE Al B0 G1 A54 B3 P1 A0 1.00 600.

> TOTAL TMU 5320.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

70,340

220.

1160.

#### File Description ? WELD ROUND TO ROUND

Output to line-Printer <Y or N> ? N

Out	put to line-Printer <y n="" or=""> ? N</y>		
WELL	WELD ROUND TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP DING BOOTH	TUL-83	
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
	Al B0 G1 A131B3 P1 A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
4	WELDTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0  WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
5	WELDMACHINES TO ON AT WELDMACHINES  A3 B0 G1 M1 X0 IO A1  WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINE	1.00	60.
	TO ON AT WELDMACHINES  Al B0 G1 Ml X0 IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
8	Al B0 G1 M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	1.00	60.
a	A3 B3 G1 A1 B0 P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	4.00	560.
	Al B0 G1 Ml X10 IO A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	4.00	520.
	ASSEMBLY AT WELDTABLE F 15  Al B0 G1 Al B0 P6 A0	15.00	1350.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6  Al B0 G1 Ml X0 IO Al	6 00	240
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 15	6.00	240.
13	Al B0 G1 Al B6 P6 A0 OPERATE WELD STINGER-BUTTON1 PROCESS F 56	15.00	2250.
	Al BO G1 M6 X81 IO AO PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 6	56.00	49840.
	Al BO G1 Ml XO IO Al	6.00	240.
ТЭ	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 5 6 ( 4 5 6 7 )

ROZRO MZS

					$\mathcal{L}$		,	,	-				
		Al	во с	31 (2	A1 B0	Р1	C10	)A1	в0	P1	A0 (56	5) 1.00	6760.
16	REPLACI					FRO	ME	LDTAB:	LE T	O CA	RT AT		
	WELDTA	BLE '	WITH 4	l STEP	S F 2								
					Al	в0	G1	Аб	в0	P3	A0	2.00	220.
17	FITTER	MOUE	CART	FROM	WELDT	ABLE	TO	WORKT	ABLE				
				_	Al	в0	G1	A13	1B0	Р1	A0	1.00	1340.
											TOTAL	ידיו אידי	65360.
											IOIAL	IMO	05300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEET METAL SHAPE 4

# \_12"DIA to 19"DIA- X30"LG ROUND to BOUND TRANSITION

FAB.	35,440	21 MIN.	
MARK out	14.770	9 MIN.	
WELD.	69410	41 MIN	
TotAL TMU.	119626	71. MIN	

## File Description? MARK OUT ROUND TO ROUND TRANSITION Output to line-printer <Y or N> ? N

FIT	9, 1) .W11  MARK OUT ROUND TO ROUND TRANSITION WITH AWL AT SHEETMETA ROUND TO ROUND  NASSCO SHEETMETAL SHAPE 4  * 11 GAUGE GALV. SHEETMETAL  * 12'DIAMETER TO 19'DIAMETER X 30'L  * MARK OUT TRANSITION USING TEMPLATE  * MARK OUT COLLARS WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS  Al B0 G1 A6 B0 P6 A0	1.00	140.
2	PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 3	1.00	
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	3.00	330.
4	Al B0 G1 (A1 B0 P1 R16 >A1 B0 P1 A0 (4) REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 3	1.00	760.
5	Al BO G1 A6 BO P3 AO REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS	3.00	330.
6	Al BO G1 A6 BO P3 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	110.
7	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )	1.00	760.
8	ASIDE IT SO (1) ALL BO P1 R3 )ALL BO P1 AO (30) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	1540.
9	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
10	STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1400.
11	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO F1 AO (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	340,
12	WORKTABLE WITH 3 STEPS F 4  Al B0 G1 A6 B0 P6 A0  MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE	4.00	560.
	5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4)	1.00	760.
13	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		

14	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	760.
15	ASIDE PF 12 ( 4 5 6 7 )  Al BO G1 (A1 HO P1 R3 )A1 BO P1 AO (12)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	1.00	640.
16	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
	Al B0 G1 A6 B0 P3 A0	2.00	220.
17	MOUE CART FROM WORKTABLE TO 14FT.SHEAR Al B0 G1 A81 B0 P1 A0	1.00	840.
	TOTAL TM	.U	14770.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION

#### Output to line-printer <Y or N> ? N

( 39, 1) FIT

● W11 R02RO SHEAR SHEETMETAL FOR ROUND TO RUUND TRANSITION WITH 14FT, SHEAR AT SHEETMETAL SHOP OFG: 4 26-MAY-83 PER ROUND TO ROUND

NASSCO SHEETMETAL SHAPE 4

\* 11 GAUGE GALV. SHEETMETAL \* 12'DIAMETER TO 10 19'DIAMETER X 30'L

FITTER BEGINS AT 14FT, SHEAR

	1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2	
	Al B0 G1 A6 B0 P6 A0 2.00	280.
	2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS	
	Al BO G1 Ml X3 IO AO 1.00	60.
	3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 6	
	Al BO G1 A3 BO P6 A0 6.00	660.
	4 PUSH 14FT, SHEAR-FOOTPEDAL PROCESS F 9	
	Al BO G1 Ml X3 IO AO 9.00	540.
	5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT	
	14FT.SHEAR WITH 4 STEPS	
	Al BO G1 A6 BO P3 A0 1.00	110.
6	MOUE CART FROM 14FT SHEAR TO WORKTABLE	
	Al B0 G1 A81 B3 P1 A0 1.00	870.

TOTAL TMU 2520.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUSES FOR ROUND TO ROUND TRANSITION Outut to line-printer <Y or N> ? N

( 39t, 1)

FIT

.W11 R02RO CUT RADIUSES FOR ROUND TO ROUND TRANSITION WITH SABER-SAW AT SHEETMETAL SHOP

PER ROUND TO ROUND

NASSCO SHEETMETAL SHAPE 4

\* 11 GAUGE GALV, SHEETMETAL \* 12'DIAMETER TO 19'DIAMETER X 30'L

FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2

L970.
5250.
, _ 0 0 1
220.
570.

TOTAL TMU 8290.

OFG: 4 26-HAY-83

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

10810

File Description ? FORM RADIUS FOR ROUND TO ROUND TRANSITION

Output to line-printer <Y or N> ? N

( 39, 1) FIT .W11 R02R0

FORM RADIUS FOR ROUND TO ROUND TRANSITION WITH

ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

OFG: 4 26-MAY-83 PER ROUND TO ROUND

NASSCO SHEETMETAL SHAPE 4

\* 11 GAUGE GALV. SHEETMETAL \* 12'DIAMETER TO 19'DIAMETER X 30'L

\* ROLL-UP TRANSITION AND COLLAR

\* KINK END FOR EASE OF OPERATION

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 3		
A1 B0 G1 A6 B0 P3 A0	3.00	330.
2 MOUE MALLET FROM TOOLROOM TO ROLLER		
A54 B0 G1 A54 B0 P1 A0	1.00	1100.
3 FASTEN SHEETMETAL2 [KINK END] TO ROLLER 1 STRIKE USING MALLET AT ROLLER AND ASIDE PF 30 (1 4 5 6 7 )		
MALLET AT ROLLER AND ASIDE PF 30 (1 4 5 6 7 ) A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (30)	1.00	1240.
4 PLACE SHEETMETAL2 FROM ROLLER TO ROLLER WITH 3 STEPS F	1.00	1210.
3		
A1 B0 G1 A6 B0 P3 A0	3.00	330.
5 FASTEN NUT [ROLLS] TO SHEETMETAL2 AT ROLLER 3		
WRIST-STROKES USING HAND WITH 2 STEPS F 14	1.4.00	1060
A1 B0 G1 A1 B0 P1 F10 A0 B0 P0 A0	14.00	1960.
6 OPERATE ROLLER-BUTTON PROCESS F 18  A1 B0 G1 M6 X96 IO A0	18.00	18720.
7 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH	10.00	10/20.
4 STEPS F 2		
A1 B0 G1 A6 B0 P3 A0	2.00	220 •
8 MOUE CART FROM ROLLER TO WELDOUT		
A1 B0 61 A67 B3 P1 A0	1.00	730 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

-35,440

24630

TOTAL TMU

#### Please input file (R02R0.M44 > ?

File Description ? WELD ROUND TO ROUND

Output to line-printer <Y or N> ? N

(39, 101)

WELD .WO1 R02R0 .M44

WELD ROUND TO ROUND WITH ARC (STICK) WELDER A-f SHEETMETAL SHOP WELDING BOOTH
PER ROUND TO ROUND OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 4

- \* 11 GAUGE GALV. SHEETMETAL
- \* 12' DIAMETER TO 19' DIAMETER X 30'L
- \* WELDING DONE IN WELD BOOTH AREA
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

	1	FITTER PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	_	A1 B0 G1 A6 B0 P3 A0	2.00	220.
	2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE  A1 B0 G1 A131B3 P1 A0	1.00	1370.
	3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
		WELDTABLE WITH 4 STEPS F 2		
£ 1		A1 B0 G1 A6 B0 P3 A0	2.00	220.
f-1	4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
		A3 B0 G1 M1 X0 IO A32	1.00	370.
	5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	570.
		WELDMACHINES TO ON AT WELDMACHINES		
	_	A1 B0 G1 M3 X0 IO A1	1.00	60.
	6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6		
		TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6 A3 B3 G1 A1 B0 P6 A0	6.00	840.
	7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6	0.00	010.
		Al BO G1 M1 X10 IO AO	6.00	780.
	8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1		
		WRIST-TURN USING HAND F 35	25 00	0.450
	9	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 35	35.00	2450.
		A1 B0 G1 M1 X0 IO A1	35.00	1400,
	10	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL		
		ASSEMBLY AT WELDTABLE F 35	25 22	0150
	11	A1 B0 G1 A1 B0 P6 A0 WELDOR OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F	35.00	3150.
	тт	26		
		A1 B0 G1 M6 X173I0 A0	26.00	470.60
	12	PUSH WELDHOOD FROM DOWN Al- WELDOR TO UP A-f WELDOR F 35		
	1 2	A1 B0 G1 M1 X0 IO A1	35.00	1400.
	13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY A-f WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND		
		ASIDE PF 13 ( 4 5 6 7 )		
		Al BO G1 (Al BO PO L16 )Al BO F1 AO (13)	1.00	2250.
	14	WELDOR DEBURR WELDED ASSEMBLY Al- WELDTABLE 10		

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
5 2 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (5	2) 1.00	6280.
15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
WELDTABLE WITH 4 STEPS F 2		
A1 B0 G1 A6 B0 F3 A0	2.00	220.
16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE		
A1 B0 G1 A131B0 P1 A0	1.00	1340 改円用\$\$\$
69410.		

File Description ? WELD ROUND TO ROUND
Output to line-printer <Y or N> ?

TofAL +MU- 69410

# SHEEF METAL SHAPE 4

### 6"DIAXI8"LG. POUND Duct SECTION

FAB	27,100	16 MIN.	
MARK out	6,140	4 MIN.	
TOTAL	33,240	ZO MIN.	

Output to line-Printer <Y or N> ? N

FIT	9, 1) .W11 RODUCT .M10  MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP ROUND DUCT OFG: 4 31-MAY NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV. SHEETMETAL * 6' DIAMETER ROUND DUCT 18' LG * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	Y-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	1.400
2	A1 B0 G1 (A1 B0 P1 M32)A1 B0 F1 A0 (4) HARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE LAND ASIDE PF 4 ( 4 5 6 7 )	1.00	1400.
3	A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	1.00	240.
4	A1 B0 G1 A3 B0 P6 A0 MARK LINES FORM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2.00	220.
5	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (2) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	1000	400.
6	AT WORKTABLE WITH 2 STEPS F 2  A1 B0 G1 A3 B0 F6 A0  MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7	2.00	220.
7	A1 B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	200.
8	USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) .  Al B0 Gl (Al B0 Pl R16 )Al B0 Fl A0 (6)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1120.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 P1 R3 ) A1 B0 P1 A0 (3)	1 00	190.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7	1.00	170.
10	Al B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (26) PLACE SHEETMETAL2 FROM WORKTABLE TO CAART AT WORKTABLE WITH 4 STEPS	1.00	1340.
11	A1 B0 G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO SMALLSHEAR	1.00	110.
	Al BO Gl A67 BO Fl A0	1.00	700.
	TOTAL TMT	J	6140.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

## $\bigcirc$ Output to line-Printer <Y or N> ? N

( 39, 11  FIT .W11 RODUCT .M11  SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP  PER ROUND DUCT OFG: 4 31-MAY-83  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV. SHEETMETAL  * 6' DIAMETER ROUND DUCT 18'LG  FITTER BEGINS AT SMALLSHEAR	
1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	
SMALLSHEAR WITH $4$ STEPS F $2$ Al B0 G1 A6 B0 P6 A0 2.00	280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	0.0
A1 B0 G1 M1 X6 IO A0 1.00 <b>3</b> POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH	90.
2 STEPS	
A1 B0 G1 A3 B0 P6 A0 1.00  4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	110.
A1 B0 G1 Ml X6 IO A0 1.00	90.
5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT	
SMALLSHEAR WITH -4 STEPS A1 B0 G1 A6 B0 P3 A0 1.00	110.
MOUE CART FROM SMALLSHEAR TO WORKTABLE	110.
A1 B0 G1 A67 B3 F1 A0 1.00	730.
TOTAL TMU	1410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

File Description ? CUT CORNERS FOR ROUND DUCT SECTION
Output to line-printer <Y or N> ? N

utpui	t to line-printer < Y or N> ? N	
FIT	9, 1) .WII RODUCT.M12  CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SOUND DUCT OFG: 4 31-MAY-83  NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV. SHEETMETAL * 6'DIAMETER ROUND DUCT 18' LG FITTER BEGINS AT WORKTABLE	SHOP
1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	
2	A1 B0 G1 A6 B0 P3 A0 1.00 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	110.
	-A1 B0 G1 A1 B0 P6 A0 2.00	180,
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )  Al BO Gl (Al BO P3 C3 )Al BO F1 AO (2) 1.0	0 180,
4	FASTEN FLATTEN SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER-AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	, 100,
	A1 B0 G1 (A1 B0 PO F6 )A1 B0 Pl A0 (2) 1.00	180,
5	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	
6	A1 BO G1 A'6 BO P3 A0 1.00 MOUE CART FROM WORKTABLE TO LAPOUT	110.
0	Al BO Gl A54 BO Pl A0 1.00	570.

Type D,EM, CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

2.740

TOTAL TMU 1330.

#### File Description ? FORM LAP SEAM ON ROUND DUCT

#### Output to line-Printer <Y or N> ? N

FIT SHE	9., 1) ,W11 RODUCT.M13 FORM LAP SEAM ON ROUND DUCT WITH LAPOUT (ROTARY MACHINITETMETAL SHOP ROUND DUCT NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV, SHEETMETAL * 6' DIAMETER ROUND DUCT 18'LG * FORM LAP SEAM AND LAPOUT END FOR FLANGE FITTER BEGINS AT LAPOUT		
1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS  Al BO G1 A6 BO P3 A0	1.00	110.
2	PUSH LAPOUT-SWITCH PROCESS	_,,,	,
3	Al BO G1 Ml X16 IO AO POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS	1.00	190.
4	Al BO G1 A3 BO P6 A0 PUSH LAPOUT-SWITCH PROCESS	1.00	110.
_	Al BO G1 Ml X16 IO AO	1.00	190 *
5	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS		
_	Al BO G1 A6 BO P3 A0	1.00	110,
6	MOVE CART FROM LAPOUT TO ROLLER Al BO G1 A10 BO P1 A0	1.00	130,
	TOTAL '	ΓMU	840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

#### File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

## Output to line-printer <Y or N> ? N

	9, 1)							
F'.	,W11 R O D U C T : M 1 4 FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH							
R	ER (ROLL FORMER) AT SHEETMETAL SHOP							
	ROUND DUCT OFG: 4 31-MAY-83							
	NASSCO SHEETMETAL ROUND DUCT SECTION '							
	* 20 GAUGE GALV, SHEETMETAL							
	* 6' DIAMETER ROUND DUCT 18'LG FITTER BEGINS AT ROLLER							
	FILLEY DEGINS AL KOUDEK							
	MOVE MALLET FROM TOOLROOM TO ROLLER	1100						
	AS4 BO G1 AS4 BO P1 A0 1.00 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH	1100.						
	4 STEPS							
	Al BO G1 A6 BO P6 A0 1.00	140.						
	FASTEN [KINK] SHEETMETAL AT ROLLER 1 STRIKE USING							
	MALLET AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F3 )A1 BO P1 A0 (40) 1,00	1640.						
	POSITION SHEETMETAL FROM ROLLER TO ROLLER F 4	1040.						
	Al BO Gl Al BO P6 A0 4.00	360.						
	5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3							
	WRIST-TURNS USING HAND F 8	0.00						
_	Al BO Gl Al BO Pl F6 AO BO PO AO 8.00 PUSH ROLLER-BUTTON PROCESS F 8	800,						
$(\cdot)$	Al BO Gl Ml X96 IO AO, 8.00	7920.						
	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH							
	4 STEPS							
	Al BO Gl A6 BO P3 A0 1.00 MOVE CART FROM ROLLER TO WORKTABLE	110,						
	Al BO Gl A54 B3 Fl A0 1.00	600.						
	711 DO GI 1131 DO 11 AU 1.00	000.						
		10670						
	TOTAL TMU	12670.						

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

16,250

File Description ? RIVET ROUND DUCT SECTION  $\label{eq:power_section} \ensuremath{\mathfrak{File}} \begin{subarray}{ll} \$ 

V				
	FIT	P, 1)  • W11  RODUCT-M15  RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SH OFG: 4 31-MA  • NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV, SHEETMETAL  * 6' DIAMETER ROUND DUCT 18' LG  * SEAL RIVET HEADS AND SEAM WITH SEALANT  FITTER BEGINS AT WORKTABLE		
	1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
	2	Al BO Gl A6 BO P3 A0 PLACE RIVET-HOLE-GUIDEY FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	110.
	3	Al BO Gl Al BO P3 A0 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 14 ( 4 5 6 7 )	1,00	60.
	4	Al BO Gl (Al BO Pl R3 )Al BO Fl AO (14) GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00	740.
(	<sup>5</sup>	Al BO Gl (Al BO P3 Cl )Al BO Fl AO (2) FASTEN 5-32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING, CHUCKKEY AT WORKTABLE AND ASIDE	1.00	140.
	6	Al BO GI. Al BO P3 F6 Al BO P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14	1.00	140.
	7	Al BO GL Al BO P6 A0 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14	14.00	1260.
		Al BO Gl M6 X6 IO A0 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT	14.00	1960.
	O	WORKTABLE F 14  Al BO Gl Al BO P6 A0	14.00	1260.
	9	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14		
	10	OPERATE RIVETGUN AT WORKTABLE PROCESS F 14	14.00	
	11	Al BO G1 M6 X3 IO A0 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16	14.00	1540.
	1 2	Al BO Gl Al BO P6 AO GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING	16.00	1440,
		CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al BO Gl (Al BO P3 Cl )Al BO Pl A0 (16)	1.00	8.40.
	13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0	1.00	100,
į	<u></u>	TOTAL TM	ſU	10850.

SHEETMETAL SHAPE # 4

# 8"DIA. X 18"16 ROUND Duct StellON

_FAB	28500	17 MIN	
MARK-OUT	7766	5	
TotAL TMU.	36200	22 MIN	

#### Polyutput to line-printer <Y or N> ? N

FIT	9, 1) .W11 RODUCT - MARK OUT ROUND DUCT WITH AWL AT SHEETMETAL SHOP ROUND DUCT NASSCO SHEETMETAL SHAPE 4 * 20 GAUGE GALV, SHEETMETAL * 8' DIAMETER ROUND DUCT 18' LG * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	N-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 Gl (Al B0 Pl M32 )Al B0 Fl A0 (4)	1.00	1400.
	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO P1 R3 )A1 BO P1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00'	240.
4	WORKTABLE WITH 2 STEPS F 2  Al B0 Gl A3 B0 P6 A0  MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6	2.00	220.
5	7) Al B0 Gl (Al B0 Pl R16 )A1 B0 Pl A0 (2) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	1.00	400.
6	Al BO Gl A6 BO P6 AO MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7	2.00	280.
7	Al BO Gl (Al BO Fl R6 )Al RO Pl AO (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	200.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1120.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3 )A1 B0 Pl A0 (33)	1.00	1690.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7 )		
10	Al B0 Gl (Al B0 Pl R3 )A1 HO Pl A0 (26) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	1340.
11	Al BO Gl A6 BO P3 A0	1.00	110.
11	MOUE CART' FROM WORKTABLE TO SMALLSHEAR Al B0 Gl A67 B0 Pl A0	1.00	7.00 .

TOTAL TMU

7700.

#### File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

Output to line-printer <Y or N> ? N

FIT SHE	ROBUCT  SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT ETMETAL SHOP  ROUND DUCT  NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE GALV. SHEETMETAL  * 8' DIAMETER ROUND DUCT 18' LG  FITTER BEGINS AT SMALLSHEAR	
1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2  Al DO Gl A6 DO P6 A0 2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR FROCESS	
3	Al B0 Gl Ml X6 IO A0 1.00 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS.	90.
4	Al BO Gl A6 HO P6 A0 1.00 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	140.
5	Al DO Gl Ml X6 IO A0 1.00 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT	90.
	SMALLSHEAR WITH 4 STEPS  Al BO Gl A6 BO P3 A0 1.00	110.
	MOUE CART FROM SMALLSHEAR TO WORKTABLE Al B0 Gl A67 B3 Pl A0 1.00	730.

TOTAL TMU 1440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? CUT CORNERS FOR ROUND DUCT

## mutput to line-printer <Y or N> ? N

, <del></del>		
FIT	.W11 RODUCT CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHO ROUND DUCT OFG: 4 01-JUN-83  NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE GALV. SHEETMETAL  * 8' DIAMETER ROUND. DUCT 18' LG  FITTER BEGINS AT WORKTABLE	P
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS Al BO Gl A6 BO P3 A0 1.00	110.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS P 2	
3	Al B0 Gl A3 B0 P6 A0 2.00  CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING  SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	220.
4	Al B0 Gl (Al B0 P3 C3 )Al B0 Pl A0 (2) 1.00 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	180.
5	Al B0 Gl (Al B0 PO F6 )Al B0 Pl A0 (2) 1.00 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	180.
6	Al BO Gl A6 BO P3 AO 1.00  MOUE CART FROM WORKTABLE TO LAPOUT  Al BO Gl AS4 BO Pl AO 1.00	110. 570.
	AI DO GI AD4 DO FI AO 1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H far help> ?

2810

1370.

TOTAL TMU

#### File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1)-FIT .W11

RODUCT -FIT

FORM LAP SEAM ON 'ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

OFG: 4 01-JUN-83 PER ROUND DUCT

NASSCO SHEETMETAL SHAPE 4

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8' DIAMETER ROUND DUCT 18' LG
- \* FORM LAP RIVET SEAM
- \* LAP OUT END FLANGE

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LP	APOUT	TO	LAP(	TUC	WITH	4	
	STEPS												
				Αl	В	0	Gl	А6	в0	Р3	A0		

	2112	Δ1	RΛ	G1	Δ6	в0	DЗ	AΟ	1.00	110.
2	PUSH LAPOUT-SWITCH PROCES		Ъ	O1	AU	ъо	13	AU	1.00	110.
		Al	В0	Gl	Ml	X16	IO	A0	1.00	190.
3	POSITION SHEETMETAL FROM			-	_					
			В0	Gl	Aб	В0	Рб	A0	1.00	140.
4	PUSH LAPOUT-SWITCH PROCES		- 0	~ 7				- 0	1 00	100
_								A0	1.00	190.
5	REPLACE SHEETMETAL FROM	LAPO	UT '	l'O C	AR'I'	A'I' LA	APOU'	T WITH		
	4 STEPS	Αl	DΛ	C1	76	в0	כת	7. ()	1.00	110.
6	MOUE CART FROM LAPOUT TO			GI	Ao	ьо	Р3	AU	1.00	110.
0.	MOUL CART FROM LAPOUT TO	Al	B0	Gl	A10	в0	Pl	A0	1.00	130.

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H far help> ?

#### File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

## Dutput to line-printer <Y or N> ? Y

( 39, 1)  FIT .W11 R O D U C T  FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH  ROLLER (ROLL FORMER) .AT SHEETMETAL SHOP  PER ROUND DUCT OFG: 4 O1-JUN-83  NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE GALV SHEETMETAL  * 8' DIAMETER ROUND DUCT 18' LG  FITTER BEGINS AT ROLLER	
1 MOVE MALLET FROM TOOLROOM TO ROLLER A54 B0 Gl A54 B0 Pl A0 1.00 2 POSITION SHEETMETAL FROM CART ATROLLER TO ROLLER WITH	1100.
4 STEP Al BO Gl' A6 BO P6 A0 1.00	140.
3 FASTEN [KINKI] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 20 ( 4 5 6 7 ) Al B0 Gl (Al B0 P0 F6 )Al B0 Pl A0 (20) 1.00 4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS	1440.
F 4  Al. BO Gl A6 BO P6 A0 4.00  5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3	560.
WRIST-TURNS USING HAND F 8  Al B0 Gl- Al B0 Pl F6 A0 B0 P0 A0 8,00	800.
6 PUSH ROLLER-BUTTON PROCESS F 8 Al B0 Gl Ml X96 IO A0 8.00 7 REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH	7920.
4 STEPS Al B0 Gl A6 B0 P3 A0 1.00	110.
8 MOUE CART FROM ROLLER TO WORKTABLE A1 B0 G1 A54 B3 P1 A0 1.00	600.
TOTAL TMU	12670.

## putput to line-grinter <Y or N> ? Y

FIT	9, 1) .W11 ROBUCT: RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP ROUND DUCT OFG: 4 01-JUN-83 NASSCO SHEETMETAL SHAPE 4 * 20 GAUGE GALV. SHEETMETAL * 8' DIAMETER ROUND DUCT 18' LG * SEAL RIVET HEADS AND SEAM WITH SEALANT FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	110
2	Al B0 Gl A6 B0 P3 A0 1.00 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	110.
3	Al B0 Gl Al B0 P3 A0 1.00 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF -14 ( 4 5 6 7 )	60.
4		740.
5		140.
6		140.
	WORKTABLE F 14  Al B0 Gl Al B0 P6 A0 14.00 1	260.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14  Al B0 Gl M6 X6 IO A0 14.00 19	960.
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 14	
9	Al B0 Gl A3 B0 P6 A0 14.00 1 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 14	540.
1.0	Al BO Gl A3 BO P6 A0 14.00 1	540.
		960.
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 16	7.60
12	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7	760.
13	Al BO Gl (Al BO P3 Cl )Al BO Pl AO (16) 1.00 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	340.
		L00.

TOTAL TMU 12150.

SHEET METAL SHAPE 4

## 5"DIA. ROUND DUCT SECTION 38"LG

FAB	39,776 .	24 MIN.
MARK OUT	7.6.00	5. MIN
TOTAL TMU:	49,370	28 MIN

#### Output to line-printer <Y or N> ? N.

• • • • • • • • • • • • • • • • • • • •			
	9, 1)  • WII RODUCT		
PER	MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP ROUND DUCT OFG: 4 31-MAY NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV, SHEETMETAL  * 5' DIAMETER ROUND DUCT 38' LG  * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	Z-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO P1 R3 )A1 BO P1 A0 (4)	1.00	
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	210.
4	A1 B0 G1 A1 B0 P6 A0 HARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2.00	180.
5	Al B0 Gl .(A1 B0 P1 R16 )A1 B0 P1 A0 (2) POSITION CORNER TEMPLATE FROM. WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	1.00	400,
6	Al BO G1 A3 BO P6 AO MARK SHEETMETAL AT WORKTABLE FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2;00	220.
7	Al BO G1 (A1 BO P1 R6 )A1 BO P1 AO (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	200.
8	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 33 ( 4 5 6 7 )	1.00	1120.
9	ASIDE PF 33 (4567)  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (33)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 (4567)	1.00	1690.
10	Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (26) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	1340.
11	Al BO G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO SMALLSHEAR	1.00	110.
11	Al BO G1 A67 B0 P1 A0	1.00	7.00 •
	TOTAL TMU	J	7600.

#### File Description ? SHEAR SHEETMETAL FOR ROUND DUCT SECTION

## Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11	RODUCT # <b>KS</b>	
1 1 1	UND DUCT SECTION WITH SMALL 8FT, SHEAR AT	
SHEETMETAL SHOP	OND DOCT SECTION WITH SMALL OFT, SHEAR AT	
PER ROUND DUCT	OFG: 4 31-MAY-83	
NASSCO SHEETMETAL ROUN	ND DUCT SECTION	
* 20 GAUGE GALV. SHEETM		
* 5' DIAMETER ROUND DUC	CT 38'LG	
FITTER BEGINS AT SMALLSH	HEAR	
3		
1 POSITION SHEETMETAL 2FROM		
SMALLSHEAR WITH 4'STEPS	/ - <del>-</del>	0.
2 PUSH FOOTPEDAL AT SMALLS		υ.
Z PUSH FOOTPEDAL AT SMALLS		0.
3 POSITION SHEETMETAL FROM	M SMALLSHEAR TO SMALLSHEAR WITH	•
2 STEPS	Similabiline 10 Similabiline Willi	
	Al BO G1 A3 BO P6 AO 1.00 11	0.
4 PUSH FOOTPEDAL AT SMALLS	SHEAR PROCESS	
	Al BO G1 Ml X6 IO AO 1.00 9	0.
5 REPLACE SHEETMETAL FROM	I SMALLSHEAR TO CART AT	
SMALLSHEAR WITH 4 STEPS		_
, vous cast spok chailens	112 20 02 117 27 117 2100 22	0.
6 MOVE CART FROM SMALLSHEA		0.
	AI BU GI AU BS PI AU 1.00 /3	Ι.

TOTAL TMU 1410.

#### File Description ? CUT CORNERS FOR ROUND DUCT

#### Dutput to line-Printer <Y or N) ? N

(39,	1	)
FIT'	•	W11

CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMETAL SHOP PER ROUND DUCT OFG: 4 31-MAY-83

NASSCO-SHEETMETAL ROUND DUCT SECTION

- \* 20 GAUGE GALV. SHEETMETAL
- \* 5' DIAMETER ROUND DUCT 38'LG

FITTER BEGINS AT WORKTABLE

FILLER DEGINS AT WORKTABLE		
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
Al BO G1 A6 BO P3 A0	1.00	110.
2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
Al BO G1 Al BO P6 AO	2.00	180.
3 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P3 C3 )A1 B0 F1 A0 (2)	1.00	180.
4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3		
STRIKES USING HAMMER.AT WORKTABLE AND ASIDE PF 2 ( 4 5		
6 7 )		
Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2)	1.00	180.
5.REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS		
Al B0 G1 A6 B0 P3 A0	1.00	110.
6 MOVE CART FROM WORKTABLE TO LAPOUT	1 00	
Al B0 G1 A54 B0 P1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2 7 4 0

1330.

TOTAL TMU

File Description ? FORM LAP SEAM ON ROUND DUCT

#### Output to line-printer <Y or N> ? N

( 39, 1) FIT ,W11 RODUCT RODUCT

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

PER ROUNC DUCT OFG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

- \* 20 GAUGE GALV, SHEETMETAL
- \* 5' DIAMETER ROUOND DUCT 38'LG
- \* FORM LAP SEAM AND LAPOUT FOR END FLANGE

FITTER BEGINS AT LAPOUT

PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS

		Al	в0	G1	Аб	в0	Р3	A0	1.00	110.
2	PUSH LAPOUT-SWITCH PROCES	SS								
		Al	В0	G1	Ml	X16	IO	A0	1.00	190.
3	POSITION SHEETMETAL FROM	LAI	TUOS	TO	LAPO	UT W	ITH	3 STEPS		
		Al	В0	G1	Аб	в0	Pб	A0	1.00	140.
4	PUSH LAPOUT-SWITCH PROCES	SS								
		Al	В0	G1	Ml	Xl6	IO	A0	1.00	190.
5	REPLACE SHEETMETAL FROM	LAPC	DUT :	ro c	ART .	AT L	APOU	T WITH		
	4 STEPS									
		Al	В0	G1	Аб	в0	P3	A0	1.00	110.
6	MOUE CART FROM LAPOUT TO	ROL	LER							
		Al	В0	G1	A10	В0	Р1	A0	1.00	130.

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## Output to line-printer <Y or N> ? N

FIT ROLI	9, 1) .Wll RODUCT ROUND FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH LER (ROLL FORMER) AT SHEETMETAL SHOP ROUND DUCT OFG: 4 31-MA NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV. SHEETMETAL * 5' DIAMETER ROUND DUCT 38' LG FITTER BEGINS AT ROLLER	Y-83	
	MOVE MALLET FROM TOOLROOM TO ROLLER A54 B0 G1 A54 B0 P1 A0	1.00	1100.
2	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	1 00	1.40
3	Al B0 G1 A6 B0 P6 A0 FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 )	1.00	140.
4	Al B0 G1 (A1 B0 PO F6 )A1 B0 F1 A0 (401 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS	1.00	28409
5	F 4  Al B0 G1 A3 B0 P6 A0  FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3	4.00	440.
_	WRIST-TURNS USING HAND F 8  Al B0 G1 Al B0 P1 F6 A0 B0. P0 A0	8.00	800.
	PUSH ROLLER-BUTTON PROCESS F 8 .  Al B0 G1 M1 X96 IO A0 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH	8.00	7920.
,	4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
8	MOUE CART FROM ROLLER TO WORKTABLE  Al B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL TM	гт	13950.
	TOTAL TIME	U	<b>1</b> 3330.

type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?'

17,560

#### Coutput to line-printer <Y or N> ? N

FIT	9, 1) .W111 RODUCT RIVET ROUND DUCT SECTION WITH RIFVE GUN AT SHEETMETAL SHOP ROUND DUCT OFG: 4 31-MAY-83 NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV. SHEETMETAL * 5' DIAMETER ROUND DUCT 38' LG * SEAL RIVET HEADS AND SEAM WITH SEALANT FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS Al B1 G1 A6 B0 P3 A0 1.00	0 110.
2	PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	
3	Al BO G1 Al BO P3 AO 1.00 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )	0 60.
4	,	0 1540,
5	Al BO G1 (Al BO P3 Cl )Al BO F1 AO (2) 1.0 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	0 140.
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0  POSITION DRILLMOTOR' FROM WORKTABLE TO SHEETMETAL AT	0 140.
b	WORKTABLE F 30	- 0500
7	Al BO G1 Al BO P6 AO 30.00 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30	=
8	Al BO G1 M6 X6 IO AO 30.00 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30	0 4200.
9	Al BO G1 Al BO P6 AO 30.00 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 30	0 2700.
10	Al BO G1 Al BO P6 AO 30.00 OPERATE RIUETGUN AT WORKTABLE PROCESS F 30	0 2700.
	Al BO G1 M6 X3 IO AO 30.00 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT	3300.
	WORKTABLE F 32  Al B0 G1 Al B0 P6 A0 32.00	O 2880.
12	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 Cl >A1 BO P1 A0 (32). 1.0	0 1640.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	0 100.
	TOTAL TMU	22210.

# 1

SHEEF METAL SHAPE

6"DIA. 38" LE LOUND DUCK

. FAB	40520	24 MIN	
MARK OUF	7600	6 MIN.	
TotAL	48120	29 MIN.	

6 SHF5.

#### utput to line-printer <Y or N> ? N

FIT	9, 1) • W11 RODUCT.M20  MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP ROOUND DUCT OFG: 4 31-MAY  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV. SHEETMETAL  * 6' DIAMETER ROUND DUCT 38'LG  * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	<i>ĭ</i> −83	
	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (Al B0 Pl M32 )Al B0 Fl A0 (4)	1.00	1400.
	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	240.
	WORKTABLE F 2  Al B0 G1 Al B0 P6 A0  MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING	2.00	180.
5	AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)  POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL  AT WORKTALE WITH 2 STEPS F 2	1.00	400.
6	Al BO G1 A3 BO P6 AO MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7	2.00	220.
7	Al B0 G1 (A1 B0 F1 R6 )A1 B0 P1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	200.
8	Al B0 G1 (A1 B0 F1 R16 )A1 B0 F1 A0 (6)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	1120.
9	ASIDE PF 33 ( 4 5 6 7 )  Al BO G1 (A1 BO F1 R3 )A1 BO F1 AO (33)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7	1.00	1690.
10	Al B0 -G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (26) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	1340.
11	Al B0 G1 A6 B0 P3 A0 MOUE CART FROM WORKTABLE TO SMALLSHEAR	1.OP	110.
	Al B0 G1 A67 B0 F1 A0	1.00	700.
	TOTAL TM	J	7600.

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

output to line-Printer <Y or N> ? N

(39,.1)

FIT ,W11. RODUCT.M21

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT, SHEAR AT

SHEETMETAL SHOP

PER ROUND DUCT 0FG: 4 31-MAY-83

NASSCO SHEETMETAL ROUND DUCT SECTION

\* 20 GAUGE GALU, SHEETMETAL

\* 6' ROUND DUCT 38' LG FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS

				Al	в0	G1	Аб	в0	Р6	A0	1.00	140.
2	PUSH	FOOTPEDAL	AT	SMALLSHEAR	R PRO	CESS	)					
				-Al	в0	G1	Ml	Хб	IO	A0	1.00	90.
2	DOGTE	DT 031 CIIDDE	1		77 T T O		ШΟ	O1 / 7 T	T 011D	7 D 1.7 T ITT		

3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS

Al B0 G1 A3 B0 P6 A0 1.00' 110. 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

Al BO G1 Ml X6 IO AO 1.00 90. 5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT

SMALLSHEAR WITH 4 STEPS

Al BO G1 A6 B0 P3 A0 1.00 110.

6 MOVE CART FROM SMALLSHEAR TO WORKTABLE Al B0 G1 A67 B3 F1 AO. 1.00 730.

TOTAL TMU 1270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### Invalid File Name

Please input file <RODUCT.M22> ?

File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-Printer <Y or N> ?'N

FIT	9, 1) .W11 RODUCT.M22  CUT CORNERS FOR ROUND DUCT WITH SNIPS AT SHEETMETAL SHOP ROUND DUCT OFG: 4 31-MAY NASSCO SHEETMETAL ROUND DUCT SECTION * 20 GAUGE GALV. SHEETMETAL * 6' ROUND DUCT 38'LG FITTER BEGINS AT WORKTABLE	7-83	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
2	Al B0 G1 A6 B0 P3 A0 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	110.
3	Al B0 G1 Al B0 P6 A0 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING	2.00	180.
Д	SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 C3 )A1 BO P1 AO (2) FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3	1.00	180.
1	STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
5	Al B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (2) REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	180.
_	Al B0 G1 A6 B0 P3 A0	1.00	110.
0	MOVE CART FROM WORKTABLE TO LAPOUT Al B0 G1 A54 B0 P1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

2600

1330.

TOTAL TMU

#### File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11

RODUCT.M23

OFG: 4 31-MAY-83

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT AT SHEETMETAL SHOP

PER ROUND DUCT
NASSCO SHEETMETAL ROUND DUCT SECTION

\* 20 GAUGE GALV. SHEETMETAL

\* 6' DIAMETER ROUND DUCT 38' LG

\* FORM RIVET SEAM

\* LAPOUT END FLANGE

FITTER BEGINS AT LAPOUT

	TITIBLE BEGINS III BILOUT	
1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS	
	Al B0 G1 A6 B0 P3 A0 1.00	110.
2	PUSH LAPOUT-SWITCH PROCESS	
	Al BO G1 Ml X16 IO AO 1.00	190.
3	POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 2 STEPS	
	Al B0 G1 A3 B0. P6 A0 1.00	110.
4	PUSH LAPOUT-SWITCH PROCESS	1 0 0
_	Al B0 G1 Ml X16 IO A0 1.00	190.
5	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH  4 STEPS	
	Al BO G1 A6 BO P3 A0 1.00	110.
6	MOVE CART-FROM LAPOUT TO ROLLER	
	Al BO G1' A10 BO P1 A0 '1.00	130.
	TOTAL TMU	840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? FORM ROUND DIAMETER FOR ROUND DUCT

Output to line-printer (Y or N> ? N

( 39, 1)  FIT ● W11 RODUCT.M24  FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH  ROLLER (ROLL FORMER) AT SHEETMETAL SHOP  PER ROUND DUCT OFG: 4 Ol-JUN-8-3  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV, SHEETMETAL  * 6' DIAMETER ROUND DUCT 38' LG  FITTER BEGINS AT ROLLER	
1 MOVE MALLET FROM TOOLROOM TO ROLLER A54 B0 G1 A54 B0 F1 A0 1.00 2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH	1100.
4 STEPS Al B0 G1 A6 B0 P6 A0 1.00	140.
3 FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 40 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (401 1.00	2840.
4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 2 STEPS F 4	4.4.0
Al B0 G1 A3 B0 P6 A0 4.00 5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8	440.
Al B0 G1 Al B0 F1 F6 A0 B0 P0 A0 8.00 6 PUSH ROLLER-BUTTON PROCESS F 8	800.
Al BO G1 Ml X96 IO AO 8.00 7 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH	7920.
4 STEPS Al B0 G1 A6 B0 P3 A0 1.00 8 MOVE CART FROM ROLLER TO WORKTABLE	110.
Al B0 .G1 A54 B3 P1 A0 1.00	600.
TOTAL TMU	13950.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?</pre>

File	Description	2	PTMET	CINIDA	חווכידי	SECTION

Ο	u	t	р	u	t	line-Printer.(Y or N> ? N	

utj	o u t line-Printer.(Y or N> ? N		
	, wil roduct.M25  RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SECUND DUCT OFG: 4 01-JU  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV SHEETMETAL  * 6' DIAMETER ROUND DUCT 38'LG  * SEAL RIVET HEADS AND SEAM WITH SEALANT  FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETHETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	1 00	110
2	Al B0 G1 A6 B0 P3 A0 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	110,
3	A1 B0 G1 A1 B0 P3 A0 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE' PF 30 ( 4 5 6 7 )	1.00	601
4	Al B0 G1 (A1 B0 P1 R3 >A1 B0 P1. A0 (30) GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00	1540.
5	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (2) FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	1.00	140.
6	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE Al B0 G1 Al B0 P3 F6 Al B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	1.00	140.
-	WORKTABLE WITH 2 STEPS F 30  Al B0 G1 A3 B0 P6 A0	30.00	3300.
	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 30  Al B0 G1 M6 X6 I0 A0  POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT	30.00	4200.
9	WORKTABLE F 30 . .A1 B0 G1 A1 B0 P6 A0 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT	30.00	2700.
1.0	WORKTABLE F 30  Al B0 G1 Al B0 P6 A0	30.00	2700.
	OPERATE RIVETGUN AT WORKTABLE PROCESS F 30  Al B0 G1 M6 X3 IO A0	30.00	3300.
	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 30 Al B0 G1 A3 B0 P6 A0	30.00	3300.
12	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P3 Cl )A1 B0 F1 A0 (30)	1.00	1540.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 PO T10 A0 B0 PO A0	1.00	100.

TOTAL TMU 23130.

ſ	MOST® COMPUTER SYSTEMS								
	Title and Method Specification Sheet								
	Ma	SSCO Project/Assignment:			Sign.	YOUNG			
ا (ت		- MARK OUT ROOND D	Duct SECTION		Page	/			
í		TITLE ( • REQUIRED)	•	. CONDITIONS / + KEY	POINTS				
-	• ACT	IVITY: MARK	N.A.S.S.C.O.	SHEETMETAL	Rou	UN DUCT			
		ECT: SHEE-THEFAC	* ZO CAUGE GALV	1. 6" DIS. ROUND	Duct				
		N ON FOR	X MARK out W	ItHOUT TEMPL	1,2-				
	PRO	DUCT/EQUIPMENT:		·					
- 1	тоо	DL: AWL	DATA UNIT	TEMPORARY FILE NAME/NO		DELETE YES			
	• 🗆 т	TO ZAT	10 BE FILED						
1	SIZE	E/CAPACITY:	WORK AREA LAYOUT	FIT W.O.	"//				
	• WOR	rk area origin: 5#0P	MOST ANALYSIS	R. Duct. M.O.	420				
1		RK AREA NUMBER:	COMBINED SUB-OP.						
1		T: PETE ROUND DUCT . OFG: 4	TITLE SHEET						
1	-	RATOR: • BEGINS:	DATE FILED	LOC. NO.	DATA	COORDINAT			
	(If b	plank, use default beginning Operator and Location.)			< sime	) (PF)			
į	NO.	KEYWORD / METHOD DESCRIPTION							
	/	1 PIEASURE DIMENSION ON SHEEFMETAL AF WORKFABLE							
		USING STEEL-TAPE AT WORKTABLE AND ASIDE P.F4							
ſ	2								
		VSING AND ATWOCKFABLE AND							
ે <sup>ા</sup> 1	3	POSITION STENCHFEDGE FLOM WOCKTABLE to SHEETMETSL							
		At WORKHABLE F-Z							
İ	4	MARK LINES FROM STRAIGHTEDGE to SHEETMETAL AT							
		WORKTABLE 5 DIGITS USING AWL AND ASIDE P.F Z							
	5-	5 POSITION COENER TEMPLATE FROM WORKTABLE to							
•		SHEEFMEFAL A TWORKFABLE F-Z	• •						
	2								
		At WORKTABLE 2 DIGITS USIN	G AWL At WON	CKTABLE AND	A510	<u> </u>			
	7	MARK CUTLINES ON SHEETMET	EL AT WORKAS	LE 5 DIGHS					
		USING REDPEN AFWORKTOULE	AND ASIDE P.A	7-6					
	8	MARK Construction INFORMATION O	N SHEETMERS. A	+ WIPK tight		<del></del>			
		I DIGIT USING BLACK PERS AT WORL	FABLE AND ASIA	DE P.F 33					
	9	·	LATWORKFABLE	10/5/1					
		USING BLACK PEN AT WERKLARLE AND							
	10	PLACE SKEETHETAL FROM WORLT	IBLE TO CARTA	+ WORKHAAKE		<del></del>			
1901		141 H 4.51EPS							
· •)	11	MOVE CART FROM WORKFUBLE	to SMALL SHO	TIR .					
6				·					

C HBMCD 1

			MOST® COMP	UTER SYSTEMS		Acni	39/63			
	Ì	Title and Method Specification Sheet								
			Project/Assignment:			Sign	10011			
	1		SHEAR SHEEFMET	FAL FOR POUR	10 Duct	Page				
	ı		TITLE ( • REQUIRED)		L CONDITIONS / * KE	YPOINT	\$			
	.	• AC	FIVITY: SALAR	N. AS.S.C.O.	SHEEMMETAL	ROUL	10 Duct			
	- 1	• 08.	SHEETMETAL	* ZO GAUGE GAL	V 6" LOUND P	oct 3	8"16			
			IN ON FOR	]						
	.		DDUCT/EQUIPMENT:		<del>,</del>		<del></del>			
		TO:	J//W-K J//W//	DATA UNIT TO BE FILED	TEMPORARY		DELET			
	ł	_	TO ØAT	WOOK 4051 LAVOUT						
	1		e/capacity: rk area origin: <i>S ff o P</i>	MORK AREA LAYOUT	R. Ouct M.O.	#21	1 7			
	- 1		RK AREA UMBER:	COMBINED SUB-OP.	11.0001 11.0.		1 7			
•			T. PER ROLUD DUEF OFG: 4	TITLE SHEET			1 7			
	ł		ERATOR: • BEGINS:	DATE FILED	LOC. NO.	DATA	COORDINA			
		(If t	plank, use default beginning Operator and Location.)				••••			
	İ	NQ.	KEYWORD / METHOD DESCRIPTION	<u> </u>	· . —	< simi	9) (PF)			
	Ī	1	POSITION SHEETMETAL FROM E	ART AT SMAL	L SHEAR		<del></del>			
	ſ		to SMALL SHEAR WITH & STEPS							
	Ī	ح								
	, r	3	PUSH FIST PEPAL AT SMALL SHEAR POSITION SAEETMETAL FROM SM	· · · · · · · · · · · · · · · · · · ·	SM ALLSHEAR					
	` ı		At SMALL SHEAR	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·			
•	Ī	4	PUSH FOOTPE-DAL AT SMALL SHEAR	PROCESS	7		<del></del>			
	f	5	REPLACE SHEE MEAL FROM SM.		set At	<del></del>				
			SMALLSHEAR WIHH 4 STEPS				<del></del>			
		6		NO EKTABLE			<del></del>			
	1									
	ſ									
	Ī						******			
	İ									
	Ì			<del></del>						
	t			<del></del>						
	.									
	- 1					<del></del> -	<del></del>			
	=									
	1041						<del></del>			
<b>( )</b> ,	. ]			<del></del>						
	7 (0)									

5HEEF METAL SHAPE 4

1"DIA-X 48"LG. ROUND Duct

FAB 49410 30 MIN.
MARKOUT 7700 5 MIN.
TOTAL 57110 35 MIN

#### File Description ? MARK OUT ROUND DUCT

Output to line-Printer <Y or N> ? N

FIT	9, 1) ,W11 RODUCT.M40  MARK OUT ROUND DUCT SECTION WITH AWL AT SHEETMETAL SHOP ROUND DUCT OFG: 4 26-JUL  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV. SHEETMETAL  * 4' DIAMET ROUND DUCT 48' LG  * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	u-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
3	Al B0 'G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	1.00	240.
4	Al B0 G1 A3 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE TO SHETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) .	2.00	220.
5	Al B0 G1 (A1 B0 P1 R16.)A1 B0 P1 A0 (2) POSITION.CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	1.00	400.
6	Al BO G1 A6 BO P6 A0  MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7	2.00	280.
7	Al B1 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	200.
8	USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (6) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1120.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 33 ( 4 5 6 7 )  Al BO G1 (A1 B0 P1 R3 )A1 B0 Pi A0 (33)	1.00	1690.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 5 6 7	1.00	1070.
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 -P1 A0 (26) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	1340.
	WITH 4 STEPS Al B0 G1 A6 B0 P3 A0	1.00	1101
11	MOVE CART FROM WORKTABLE TO SMALLSHEAR Al B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL TMT	J	7700.

## File Description ? SHEAR SHEETMETAL FOR ROUND DUCT

Otput to line-Printer (Y or N> ? N

39,	1)	
FIT	.W11	RODUCT

SHEAR SHEETMETAL FOR ROUND DUCT **SECTION** WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP
PER ROUND DUCT OFG: 4 Ol-JUN-83

NASSCO SHEETMETAL ROUND DUCT SECTION

- \* 20 GAUGE GALV. SHEETMETAL
- \* 4' DIAMETER ROUND DUCT 48' LG

FITTER BEGINS AT SMALLSHEAR

	1 POSITION SHEETMETAL 2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
	2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO G1 M1 X6 IO AO	1.00	90.
	3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS		
	Al BO G1 A3 BO P6 A0	1.00	110.
	4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO G1 Ml X6 IO AO	1.00	90.
	5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	Al BO G1 A67 B3 P1' 60	1.00	730.

TOTAL TMU

1410.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

File Description ? CUT CORNERS FOR ROUND DUCT
Output to line-Printer <Y or N> ?-N

FIT .W11 RODUCT SECTION WITH SNIP'S AT SHEETMETAL SHOP PER ROUND DUCT OFG: 4 01-JUN-83  NASSCO SHEETMETAL ROUND DUCT SECTION  * 20 GAUGE GALV. SHEETMETAL  * 4' DIAMETER ROUND DUCT 48' LG FITTER BEGINS AT WORKTABLE	
1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	
Al B0 G1 A6 B0 P3 A0 1.00 1 2 POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	110.
	180.
SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	180.
4 FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER.AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	
Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) 1.00 1 5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	180.
	110.
6 MOUE CART FROM WORKTABLE TO LAPOUT  Al B0 G1 A54 B0 P1 A0 1.00 5	570.
TOTAL TMU 13	330.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?;

#### File Description ? FORM LAP SEAM ON ROUND DUCT

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 RODUCT

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE)

AT SHEETMETAL SHOP

PER ROUND DUCT 0FG: 401-JUN-83

NASSCO SHEETMETAL SHAPE 4

\* 20 GAUGE GALV, SHEETMETAL

6 MOUE CART FROM LAPOUT TO ROLLER

\* 4' DIAMETER ROUND DUCT 48' LG

\* FORM LAP RIVET SEAM

\* LAPOUT END FLANGE

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS									

	SIEFS									
		$\mathtt{Al}$	BO	G1	Аб	в0	Р3	A0	1.00	110.
2	PUSH LAPOUT-SWITCH PROCE	SS								
		Al	BO	G1	Ml	X16	IO	A0	1.00	190.
3	POSITION SHEETMETAL FROM	I LAI	POUT	TO	LAPO	UT W	ITH	4 STEPS		
		Al	BO	G1	Аб	BO	Рб	A0	1.00	140.
4	PUSH LAPOUT-SWITCH PROCE	SS								
		Al	BO	G1	Ml	X16	IO	A0	1.00	190.
5	REPLACE SHEETMETAL FROM	LAPO	TUC	го с	ART	AT L	APOU	T WITH		
	4 STEPS									
		Al	BO	G1	Аб	BO	Р3	A0	1.00	110.

Al BO G1 A10 BO P1 A0 1.00

TOTAL TMU 870.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

36,10

130.

File Description ? FORM ROUND DIAMETER FOR ROUND DUCT
Output to line-printer <Y or N) ?.N

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

FIT .W11 RODUCT SECTION WITH FORM ROUND DIAMETER FOR ROUND DUCT SECTION WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP PER ROUND DUCT OFG: 4 01-JUN-83  NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE GALV. SHEETMETAL * 4' DIAMETER ROOUND DUCT 48' LG FITTER BEGINS AT ROLLER	
1 MOUE MALLET FROM TOOLROOM TO ROLLER A54 BO G1 A54 BO P1 A0 1.00	1100.
2 POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	1100.
	140.
MALLET AT ROLLER AND ASIDE PF 50 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F6 )A1 BO P1 A0 (50) 1.00	3540 •
4 POSITION SHEETMETAL FROM ROLLER TO ROLLER WITH 3 STEPS ${ m F}$ 4	
Al B0 G1 A6 B0 P6 A0 4.00 5 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3	560.
WRIST-TURNS USING HAND F 8  Al BO G1 Al BO P1 F6 A0 BO PO A0 8.00	800.
6 PUSH ROLLER-BUTTON PROCESS F 8 Al BO G1 Ml X96 IO A0 8.00 7 REPLACE SHEETMETAL2'FROM ROLLER TO CART AT ROLLER WITH	7920.
4 STEPS  Al BO G1 A6 BO P3 A0 1.00	110.
8 MOUE CART FROM ROLLER TO WORKTABLE Al B0 G1 A54 B3 P1 A0 1.00	
	230.
TOTAL TMU	14770 .

/8,380

## Quiput to line-printer <Y or N> ? N

FIT	.W11 RODUCT SECTION WITH RIVET (SUN AT SHEETMETAL SHEED ROUND DUCT OFG: 4 Ol-JU NASSCO SHEETMETAL SHAPE 4 * 20 GAUGE GALV, SHEETMETAL * 4' DIAMETER ROUND DUCT 48' LG * SEAL RIVET HEADS AND SEAM WITH SEALANT FITTER BEGINS AT WORKTABLE	IOP N-83	1140
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	1 00	110
2	Al B0 G1 A6 B0 P3 A0 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	110.
3	Al B0 G1 Al B0 P3 A0 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )	1.00	60.
4	ASIDE PF 30 ( 4 5 0 / ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00	1940.
5	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (2) FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
6	Al B0 G1 Al B0 P3 F6 Al B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 38	1.00	
7	Al <b>B0</b> G1 A6 B0 P6 A0 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38 Al B0 G1 M6 X6' IO A0		5320.
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 38	38.00	5320.
9	Al B0 G1 Al B0 P6 A0 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38	38.00	
10	Al B0 G1 A3 B0 P6 A0 OPERATE RIVETGUN AT WORKTABLE PROCESS F 38 Al B0 G1 M6 X3 IO A0		4180.
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 38		4180.
12	Al B0 G1 A3 B0 P6 A0 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 38 ( 4 5 6 7 )	38.00	4180.
13	A1 B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (38) INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 PO T10 A0 B0 PO A0		1940.
	AU DU GO AU DU PO 110 AU DU PO AU	1.00	100+

31030,

TOTAL TMU

SHEET METAL SHAPE 4

### 10"DIA. X 48" LG. - ROUND, Duct

_FAB.	51,990	29 MIN
MARK out	7,600	5
Jo 44L	59590	34 MIN

File Description ? MARK OUT ROUND DUCT SECTION
Output to line-printer <Y or N> ? N

( 39, 1) FIT .W11

FIT	.W11	RODUCT.M50		
PER	MARK OUT ROUND DUCT SECTION ROUND DUCT NASSCO SHEETMETAL SHAPE * 20 GAUGE GALV. SHEETMET * 10' DIAMETER ROUND DUCT * MARK OUT WITHOUT TEMPLATED BEGINS AT WORKTABLE	OFG: 4 4 'AL 48' LG TE	SHOP Ol-JUN-83	
1	MEASURE DIMENSIONS ON SHEE			
2			(4) '1.00	1400.
3		30 P1 R3 )A1 B0 P1 A0 WORKTABLE TO SHEETMETAL A	(4) 1.00	240.
4	MARK LINES FROM STRAIGHTED	al B0 G1 A3 B0 P6 A0	2.00	220.
	Al B0 G1 (A1 E	80 P1 RI6 )A1 B0 P1 A0		400.
5 PO	SITION CORNER TEMPLATE FRO AT WORKTABLE F 2 With 3		AL	
6	Al	BÖ G1 Al BO P6.AO	2.00	180.
Ū		ABLE AND ASIDE PF 2 ( 4 5	6 7	
_	Al B0 G1 <a1 e<="" td=""><td></td><td>(2) 1.00</td><td>200.</td></a1>		(2) 1.00	200.
7		AL AT WORKTABLE 5 DIGITS AND ASIDE PF 6 ( 4 5 6 7	)	
		0 P1 R16 )A1 B0 P1 A0	(6) 1.00	1120.
8	MARK CONSTRUCTION INFORMAT WORKTABLE 1 DIGIT USING E			
	ASIDE PF 33 ( 4 5 6 7 ) Al BO G1 (A1 .	B0 P1 R3 )A1 B0 P1 A0	(33) 1.00	1690.
9	MARK IDENTIFICATION ON SHE USING BLACKPEN AT WORKTAB		GIT	1090.
10	PLACE SHEETMETAL FROM WOR	30 P1 R3 )A1 B0 P1 A0 KTABLE TO CART AT WORKTABI		1340.
	WITH 3 STEPS	Al BO G1 A6 BO P3 A0	1.00	110.
11	MOUE CART FROM WORKTABLE 7			,
	F	T DO OIT WO! O PI AU	1.00	100.

TOTAL TMU

7600.

File Description ? SHEAR SHEETMETAL FOR ROUND DUCT Outputto line-Printer .<Y or N> ? }iN

%Invalid command.

Output to line-printer <Y or N> ? N

(39, 1)

RODUCT.M51 .W11 FIT

SHEAR SHEETMETAL FOR ROUND DUCT SECTION WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

OFG: 4 Ol-JUN-83 PER ROUND DUCT

NASSCO SHEETMETAL SHAPE 4

\* 20 GAUGE GALV. SHEETMETAL \* 10' DIAMETER ROUND DUCT 48' LG

FITTER BEGINS AT SMALLSHEAR

1	POSITION	SH	EETME	TΑ	L FROM		ART	AT	SMALLSHEAR	TO
	SMALLSHE.	AR	WITH	4	STEPS	F	2			

				AI	В0	GΙ	Α6	В0	Р6	Α0	2.00	280.
2	PUSH FOOT	TPEDAL AT	SMALLSI	HEAR	PRO	CESS						
				Al	в0	G1	Ml	Хб	IO	A0	1.00	90.
3	POSITION 2 STEPS	SHEETMET	AL FROM	SMA	ALLSI	HEAR	TO	SMAL	LSHE	AR WITH		
				Αl	B0	G1	Α3	в0	Р6	ΑO	1.00	110.

								~-					_		
4	PUSH	FOOTP	EDAL	ΑT	SMALLSH	EAR	PRO	CESS	5						
						Al	в0	G1	Ml	Хб	IO	A0	1	.00	90.
	5 RE	PLACE	SHEET	MET.	AL FROM	SMA	LLSH	EAR	TO	CART	AT				
	S	MALLSH	EAR W	ITH	4 STEPS										

Al B0 G1 A6 B0 P3 A0 6 MOVE CART FROM SMALLSHEAR TO WORKTABLE Al B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 1410.

1.00

110.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

### File Description ? CUT CORNERS FOR ROUND DUCT

Output to line-printer <Y or N> ? N

FIT	9, 1) .W11 RODUCT.M52  CUT CORNERS FOR ROUND DUCT SECTION WITH SNIPS AT SHEETMET OFG: 4 01-JUN NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE'GALV, SHEETMETAL  * 10' DIAMETER ROUND DUCT 48' LG FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
2	POSITION SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2  Al B0 G1 A3 B0 P6 A0	2.00	220.
3	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 C3 )A1 BO P1 AO (2)		180.
4	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAHMER'AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00	100.
5	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (2) REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	180.
_	WITH-4 STEPS .  Al B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM WORKTABLE TO LAPOUT A1 B0 G1 A54 B0 P1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

2780

1370.

TOTAL TMU

File Description ? FORM. LAP SEAM ON ROUND DUCT

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RODUCT.M53

FORM LAP SEAM ON ROUND DUCT SECTION WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

PER ROUND DUCT OFG: 4 01-JUN-83

NASSCO SHEETMETAL SHAPE 4

- \* 20 GAUGE GALV. SHEETMETAL
- \* 10'DIAMETER ROUND DUCT 48' LG
- \* FORM LAP RIVET SEAM
- \* LAP OUT END FLANGE

4 STEPS

FITTER BEGINS AT LAPOUT

1	PLACE STEPS	SHEETMETAL	FROM	CAART	AT	LAPC	UT T	ro LA	POUT	WITH	4	
2	2121		ui DDC		в0	G1	Аб	в0	Р3	A0		1.00
4	PUSH I	LAPOUT-SWITC	H PRC		в0	G1	Ml	X16	IO	A0		1.00

- 3 POSITION SHEETMETAL FROM LAPOUT TO LAPOUT WITH 3 STEPS Al BO G1 A6 BO P6 A0 1.00 140.
- 4 PUSH LAPOUT-SWITCH PROCESS
- Al B0 G1 Ml X16 IO A0 1.00 190. 5 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH
- Al B0 'G1 A6 B0 P3 A0 1.00 110. 6 MOVE CART FROM LAPOUT TO ROLLER Al B0 G1 Al0 B0 P1 A0 1.00 130.

TOTAL'TMU 870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

110.

190.

### File Description ? FORM ROUND DIAMETER FOR ROUND DUCT Output to line-printer <Y or N> ? N

SHEI	NODUCT.M54  FORM ROUND DIAMETER FOR ROUND DUCT WITH ROLLER (ROLL FORM ETMETAL SHOP  ROUND DUCT  NASSCO SHEETMETAL SHAPE 4  * 20 GAUGE GALV. SHEETMETAL  * 10' DIAMETER ROUND DUCT 48' LG  FITTER BEGINS AT ROLLER	,	
	MOVE MALLET FROM TOOLROOM TO ROLLER A54 B0 G1 A54 B0 P1 A0	1.00	1100.
2	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	1 00	1.40
3	A1 B0 G1 A6 B0 P6 A0 FASTEN [KINK] SHEETMETAL AT ROLLER 2 STRIKES USING MALLET AT ROLLER AND ASIDE PF 50 ( 4 5 6 7 )	1.00	140.
4	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (50) POSITION SHEETMETAL FROM-ROLLER TO ROLLER WITH 3 STEPS F 4	1.00	3540
	Al B0 G1 A6 B0 P6 A0	4.00	560.
5	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 8		
6	Al B0 G1 Al B0 P1 F6 A0 B0 P0 A0 PUSH ROLLER-BUTTON PROCESS F 8	8.00	800.
	Al BO G1 M1 X96 IO AO	8.00	7920.
7	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS		
0	Al BO G1 A6 BO P3 A0	1.00	110.
ð	MOVE CART FROM ROLLER TO WORKTABLE Al B0 G1 A54 B3 P1 A0	1.00	600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?:

18420

14770.

TOTAL TMU

### File Description ? RIVET ROUND DUCT SECTION

Output to line-printer <Y or N> ? N

FIT	9, 1) .W11 RODUCT.M55 RIVET ROUND DUCT SECTION WITH RIVET GUN AT SHEETMETAL SHOP ROUND DUCT OFG: 4 26-JUL-83 NASSCO SHEETMETAL SHAPE 4 * 20 GAUGE GALV, SHEETMETAL * 10' DIAMETER ROUND DUCT 48' LG * SEAL RIVET HEADS AND SEAM WITH SEALANT FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	
2	Al B0 G1 A6 B0 P3 A0 1.00 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE	110.
3	-7 -0 -0 -0 -0 -0 -0	60.
4	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (38) 1.00 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4.5 6 7 )	1940.
5	Al B0 G1 (A1 B0 P3 Cl >A1 B0 F1 A0 (2) 1.00 FASTEN 5-32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	140.
6	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  Al B0 G1 A1 B0 P3 F6 Al B0 P1 A0 1.00  POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	140.
	WORKTABLE WITH, 3 STEPS F 38  Al B0 G1 A6 B0 P6 A0 38.00	5320.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 38  Al B0 G1 M6 X6 I0- A0 38.00	5320.
8	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 38	
9	Al B0 G1 A3 B0 P6 A0. 38.00 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 38	4180.
1.0	Al BO G1 A6 BO P6 A0 38.00	5320.
	OPERATE RIVETGUN AT WORKTABLE PROCESS F 38  Al B0 G1 M6 X3 I0 A0 38.00	4180.
11	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 42	4620.
12	Al B0 G1 A3 B0 P6 A0 42.00 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE PF 42 ( 4 5 6 7 )	4020.
1 2	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (42) 1.00	2140.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0 1.00	100.
	TOTAL TMU	33570.

# 5HEEF METAL SHAPE # 5

### 5 GORED 5"DIA 90° ELBOW

73180	44 MIN
16,400	10 MIN
31,820	19 MIN
121,400	73 MIN.
	16,400 31,820

File Description ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

output to line-printer <1 or N> ; N		
( 39, 1)  FIT .W11 GELBOW -  MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETM  PER GORED ELBOW OFG: 4 23-MA  NASSCO SHEETMETAL SHAFE 5  * 18 GAUGE GALV. SHEETMETAL  * 5' DIAMETER 5 GORED ELBOW  * MARK OUT ELBOW USING TEMPLATE  FITTER BEGINS AT WORKTABLE		НОР
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 5		
A1 B0 G1 A1 B0 P6 A0 2 GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING	5.00	450.
VISEGRIPS AND ASIDE PF 5 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (5)  3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 )	1.00	290.
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	540.
WORKTABLE F 34 A1 B0 G1 A1 B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	34.00	3060.
HAMMER AT WORKTABLE AND ASIDE F 34.  Al B0 G1 A1 B0 P0 F3 A1 B0 P1 A0 6 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4	34.00	2720.
5 6 7 ) Al BO Gl (Al BO Pl R16 )Al BO Fl AO (10) 7 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 99 ( 4 5 6.7	1.00	1840.
A1 B0. G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (99) 8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 31 ( 4 5 6 7	1.00	4990.
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (31) 9 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	1590.
Al BO G1 A6 BO P3 A0	2100	220.
10 MOVE CART FROM WORKTABLE TO SMALLSHEAR	1 00	700

TOTAL TMU 16400.

700.

A1 B0 G1 A67 B0 P1 A0 1.00

### File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-Printer <Y or N> ? N

(3) FIT	9, 1) • W11 GELBOW SHEAR SHEETMETAL FOR-5 GORED ELBOW WITH SMALL 8FT, SHEAR AS	Γ	
~	ETMETAL SHOP  GORED ELBOW  NASSCO SHEETMETAL SHAPE 5  * 18 GAUGE GALV. SHEETMETAL  * 5' DIAMETER 5 GORED ELBOW  FITTER BEGINS'AT SMALLSHEAR	33	
1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P6 A0 2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	.00	280.
۷		.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS		100.
	A1 B0 G1 A3 B0 P6 A0 1	.00	110.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS	0.0	0.0
5	Al BO G1 M1 X6 IO AO 1 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT	.00	90.
J	SMALLSHEAR WITH 12 STEPS F 2		
	S	.00	580.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0 1	.00	730.

TOTAL TMU

1970.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11 GELBOW.822

SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH UNI-SHEAR AT SHEETMETAL

OFG: 4 23-MAY-83 PER GORED ELBOW

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE

NASSCO SHEETMETAL SHAPE 5

- \* 18 GAUGE GALV. SHEETMETAL
- \* 5' DIAMETER 5 GORED ELBOW
- \* SHEAR RADIUS ON GORES

FITTER BEGINS AT WORKTABLE

	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220 •
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR ON SHEETMETAL PROCESS F 5		
	Al BO G1 M6 X17310 AO	5.00	9050 •
4	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER-AND ASIDE PF 20 ( 4 5 6 7 )		

Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20) 1.00 1440. 5 REPLACE SHEEMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2 Al B0 G1 .A6 B0 P3 A0 6 MOVE CART FROM WORKTABLE TO ROLLER 2.00 220.

Al B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 13470.

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

### File Description ? FORM SHEETMETAL FOR 5 GORED ELBOW Output to line-printer <Y or N> ? N

(39, 1)

TIT .W11 GELBOW.M23

FORM SHEETMETAL FOR 5 GORED ELBOW WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER GORED ELBOW OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 5

- \* 18 GAUGE GALV. SHEETMETAL
- \* 5' DIAMETER 5 GORED ELBOW
- \* ROLL UP GORES TO 5' DIAMETER

FITTER BEGINS AT ROLLER

### 1PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 5

		Al	В0	G1	Аб	в0	P3	A0	5.00	550.
2	FASTEN NUT [ROLLS] TO SI	HEET	META	L AT	' ROL	LER	5			
	WRIST-TURNS USING HAND	F 23								
	Al BO G1 A1	в0	P1	F10	A0	в0	P0	A0	23.00	3220.
3	PUSH ROLLER-BUTTON PROCE	SS F	40							
		Al	В0	G1	Ml	X96	IO	A0	40.00	39600.
4	REPLACE SHEETMETAL2 FROM	ROI	LER	TO C	CART	AT R	OLLE	R WITH		
	4 STEPS F 5									
		Al	В0	G1	Аб	в0	Р3	A0	5.00	550.
5	MOVE CART FROM ROLLER TO	WEI	'DOU	Γ						
		Al	В0	G1	A67	В3	Р1	A0	1.00	730.

TOTAL TMU 44650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help) ?

File Description ? ASSEMLE 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11 GELBOW.M25

ASSEMBLE 5 GORED ELBOW WITH TACK WELDER AT SHEETMETAL SHOP
PER GORED ELBOW OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 5

- \* 18 GAUGE GALV. SHEETMETAL
- \* 5' DIAMETER 5 GORED ELBOW
- \* CLAMP SHEETMETAL GORES TOGETHER AND --
- \* -- TACK WELD
- \* MOVE TO WELD BOOTH AREA
- \* COMPLETE IN MWELD..SEE GELBOW.M25

FITTER BEGINS AT WELDOUT

1	PLACE	SHEETM	'ETAL	FROM	CART	AT	WELDOUT	TO	WELDOUT	WITH
	4 STE									

	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	HOVE CCLAMP FROM WORKTABLE TO WELDOUT		
	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
3	GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING		
	CCLAMPS AND ASIDE PF.10 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P3 01 )Al B0 P1 A0 (10)	1.00	540.
4	POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT		0 20 .
	WELDOUT F 99		
	Al BO G1 Al BO P6 AO	99.00	8910.
5	POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT	JJ.00	0,50.
Ū	WELDOUT F 16		
	Al BO G1 Al BO P6 AO	16.00	1440.
6	REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT	10.00	1110.
O	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
7	MOVE CART FROM WELDOUT TO WORKTABLE	2.00	220.
,		1	C00
	Al BO G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 13090.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help>. ?

### File Description ? WELD 5 GORED ELBOW

### Output to line-printer <Y or N> ? N

	9, 3) .WO1 GELBOW.M25		
	WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP		
	ING BOOTH GORED ELBOW OFG: 4 14-JU WELDING NASSCO SHEETMETAL SHAPE 5 * 18 GAUGE GLAV. SHEETMETAL * 5' DIAMETER 5 GORED ELBOW * WELDING DONE IN WELD BOOTH * GAS TUNGSTEN ARC WELDING * WORK PERFORMED BY WELDOR * FITTER TRANSPORTS SHEETMETAL ASSEMBLY FITTER BEGINS AT WORKTABLE	JL-83	
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
2	Al B0 G1 A6 B0 P3 A0 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	1.00	110.
3	Al B0 G1 A131B3 P1 A0 PLACE SHEETMETAL ASSEM1BLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS	1.00	1370.
4	Al B0 G1 A6 B0 P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	1.00	110.
5	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 I0 A32 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES	1.00	370.
3	TO ON AT WELDMACHINES  Al B0 G1 M1 X0 IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	1 00	E0
7	Al B0 G1 A1 B0 P1 F3 A0 B0 PO A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	70.
8	Al BO G1 M3 XO IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	1.00	60.
9	A3 B3 G1 Al B0 P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	4.00	560.
	Al BO G1 M1 X10 IO AO WELDOR POSITION WELDROD WELDTABLE TO SHEETMETAL	4.90	520.
11	ASSEMBLY AT WELDTABLE (F 12)  Al BO G1 A1 BO P6 A0	12.00	1080 .
	PULL WELDHOOD FROM LUP AT WELDOR TO DOWN AT WELDOR F 4  Al B0 G1 Ml X0 IO Al  WELDOR POSITION WELDGUN FROM WELDTABLE TOSHEETMETAL	4.00	160.
12	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 12  Al BO G1 A1 B6 P6 A0	12.00	1800.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 20 Al B0 G1 M6 X81 IO A0	20.00	17800.
	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4  Al B0 G1 M1 X0 IO Al	4.00	160.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7		

GELBOW M25

31820,

TOTAL TMU

	) F 4					_								
		Al	в0 С	31 (2	A1 B0	P1	C1	>A1	в0	Р1	A0	(50)	4.00	6160.
16	REPLACE					FROM	I WE	LDTAB	LE T	O CA	ART A	$\mathrm{T}^{A}$		
	WELDTA	BLE	WITH 4	l STEP	S									
					Al	в0	G1	Аб	в0	Р3	Α0		1.00	110.
17	FITTER	HOVE	CART	FROM	WELDT	ABLE	TO	WORKT	ABLE					
					Al	В0	G1	A13	1B0	Ρ1	A0		1.00	1340.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## SHEET METAL SHAPE # 5

### 5 GORED 12"DIA. 90° ELBOW

FAB	126890	- 76 MIN.
MARK out	12306	7 MIN.
WELD	65.460	39 MIN.
TOTAL TMU.	204650	123 MIN

Please input file <GELBOW.M01> ?

File Description ? MARK OUT 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3) FIT .W08 FIT GELBOW.MOl

MARK OUT SHEETMETAL FOR 5 GORED ELBOW WITH AWL AT SHEETMETAL SHOP OFG: 4' 31-MAR-83 PER GORED ELBOW

NASSCO SHEETMETAL SHAPE #5

- \* HULL 414
- \* DRAWING 501-073
- \* V6-5493
- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'DIA. ELBOW WITH 12'RADIUS
- \* MARK OUT ELBOW WITH STANDARD TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 5		
2	Al BO G1 A6 BO P6 AO GRIP TEMPLATE TO SHEETMETAL AT WORKTABLE USING	5.00	700.
	VISEGRIPS AND ASIDE PF 5 ( 4 5 6 7 )  Al BO G1 (A1 BO P3 C1 )A1.BO P1 AO (5)  MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE	1.00	290.
3	1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 )		
4	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A6 (10) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS	1.00	540.
	Al BO G1 A6 BO P6 A0	1.00	140.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 34 ( 4 5 6 7 )	1.00	110.
6	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (34) MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )	1.00	1400.
7	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 65 < 4 5 6 7 > F 2	1.00	1840.
8	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (65) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	2.00	6580.
9	Al B0 G1 A6 B0 P3 A0 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1.00	110.
	Al B0 G1 A67 B0 P1 A0	1.00	700.

12300. TOTAL TMU

Please input file GELBOW.M02 ?

File Description ? SHEAR SHEETMETAL FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08 GELBOW.M02

SHEAR SHEETMETAL FOR 5 GORED ELBOW WITH SMALL SHEAR (8FT. SHEAR)

AT SHEETMETAL SHOP

PER GORED ELBOW OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 5

\* HULL 414

\* DRAWING 501-073

\* V6-54493

\* 18 GAUGE GALV. SHEETMETAL

\* 12'DIA. ELBOW WITH 12'RADIUS

FITTER BEGINS AT SMALLSHEAR

1	POSITION	SH	EETME	TΑ	L FROM	CAF	T	AT	SMA	LLS	HEAR	TO	
	SMALLSHE	AR	WITH	4	STEPS								
						7A 7	_	^	~1	7 (	D O	D	7. (

		Al	в0	G1	Аб	в0	Р6	A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLS	IEAR	PRO	CESS						
		Al	В0	G1	Ml	Хб	ΙO	A0	1.00	90.
3	POSITION SHEETMETAL FROM 4 STEPS	SMA	LLSH	IEAR	TO	SMALI	LSHE.	AR WITH		
		Al	B0	G1	Аб	в0	Р6	A0	1.00	140.
4	PUSH FOOTPEDAL AT SMALLS	IEAR	PRO	CESS						
		Al	в0	G1	M1	Хб	IO	A0	1.00	90.
5	REPLACE SHEETMETAL FROM	SMAL	LSHE	CAR :	го с	ART I	ΑT			
	SMALLSHEAR WITH 4 STEPS									
		Al	в0	G1	Аб	в0	Р3	A0	1.00	110.
6	MOVE CART FROM SMALLSHEAD	OT 9	WOR	KTAB:	LE					
		Al	В0	G1	A67	В3	Ρ1	A0	1.00	730.

TOTAL TMU 1300.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <GELBOW.M03 ?

File Description ? SHEAR RADIUS FOR 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8 GELBOW.MO3

SHEAR SHEETMETAL RADIUS FOR 5 GORED ELBOW WITH UNI-SHEAR Al-SHEETMETAL SHOP

PER GORED ELBOW OFG: 4- 31-MAR-83

NASSCO SHEETMETAL SHAPE #5

- \* HULL 414
- \* DRAWING 501-073
- \* V6-5493
- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'DIA. ELBOW WITH 12'RADIUS

FITTER BEGINS AT WORKTABLE

Τ	PLACI	E SHEETMETA	L FROI	M CART	AT WORKTABLE '		TO	) WORKTABLI			
	WITH	I 4 STEPS									
				Al	в0	G1	Аб	В0	P3	A0	
2	MOVE	UNI-SHEAR2	FROM	TOOLRO	OT MC	WOR	KTAB	LΕ			
				A9	6 в0	G1	A96	В3	P1	A0	

3 OPERATE UNISHEAR ON SHEETMETAL PROCESS F 12 Al B0 G1 M6 X17310 A0 12.00 21720. 4 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTBLE 3

STRIKES.USING HAMMER AND ASIDE PF 20 ( 4.5 6 7 )

A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 -(20) 1.00 1440. 5 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

Al B0 G1 A6 B0 P3 A0 1.00 110. 6 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER Al B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 25920.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

27,220

1.00 110.

1.00 1970.

Please input file (GELBOWM.04 ?

File Description ? FORM 12'DIAMETER ON ELBOW GORES

OutPut to line-printer <Y or N> ? N

(39, 3)

FIT.W08 GELBOW.MO4

FORM SHEETMETAL FOR 12' DIAMETER ELBOW GORES WITH ROLLER AT

SHEETMETAL SHOP PER GORED ELBOW

OFG: 4 31-MAR-83 NASSCO SHEETMETAL SHAPE # 5

\* HULL 414

\* DRAWING 501-073

\* 06-5493

\* 18 GAUGE GALV. SHEETMETAL

\* 12'DIA. ELBOW WITH 12' RADIUS

\* ROLL UP 5 GORES TO 12' DIA. ON ROLLER

FITTER BEGINS AT ROLLER

1	PLACE	SHEETMETAL	FROM	CART	AT	ROL]	LER	TO	ROL:	LER	$\mathtt{WITH}$	4
	STEPS											
				ר ב	B	റ ദ	.1	Δ6	RΛ	Dβ	ΔΛ	

	AL BU GL A6 BU P3 AU	1.00	110.
2	FASTEN NUT [ROLLS] TO SHEETMETAL AT ROLLER 5		
	WRIST-TURNS USING HAND F 23		
	Al BO G1 A1 BO P1 F10 AO BO PO AO	23.00	3220.
3	PUSH ROLLER-BUTTON PROCESS F 40		3220.
	Al. BO G1 Ml X96 IO AO	40.00	39600.
4	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH	H	

	4 S7	TEPS											
				A.	l B0	G1	Аб	В0	P3	A0	1	.00	110.
5	MOVE	CART	WITH	SHEETHETAL2	FROM	ROLLE	R TO	O WE	LDOU	$^{ m T}$			

				A.	L B0	GΙ	Α6	В0	Р3	A0	1.0	00	110.
5	MOVE	CART	WITH	SHEETHETAL2	FROM	ROLI	LER T	O WE	LDOU	Т			
				A.	l BO	G1	A67	В3	Ρ1	<b>A</b> 0	1.0	00	730.

43770. TOTAL TMU

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?

70,9 90

Please, input file (GELBOW.M05 ?

File Description ? ASSEMBLE 5 GORED ELBOW

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W08 GELBOW.M05

ASSEMBLE SHEETMETAL FOR 5 GORED ELBOW WITH TACK WELDER AT

SHEETMETAL SHOP

PER GORED ELBOW OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE #5

\* HULL 414

\* DRAWING 501-073

\* V6-5493

\* 18 GAUGE GALV. SHEETMETAL

\* 12'DIA. ELBOW WITH 12'RADIUS

\* ASSEMBLE 5 GORED ELBOW WITH TACK WELDS

\* THIS ELBOW COMPLETE WITH MWELD FOR (M061

FITTER BEGINS AT WELDOUT

1	PLACE SHEETMETAL FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS F 3		
	Al BO G1 A6 BO P3 A0	3.00	330.
2	MOVE CCLAMPS FROM WORKTABLE TO WELDOUT		
	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
	GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING		
	CCLAMPS AND ASIDE PF 10 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (10)	1.00	540.
4	POSITION TACKWELDER. FROM WELDOUT TO SHEETMETAL AT		
	WELDOUT PF 3 ( 4 5 6 ) F 96		
	Al B0 G1 (A1 B0 P6 )A0 (3)	96.00	22080.
5	OPERATE TACKWELDER AT WELDOUT PROCESS F 96		
	Al BO G1 M6 X3 IO AO	96.00	10560.
6	OPERATE TACKWELDER AT WELDOUT PROCESS F 96		
	Al BO G1 M6 X3 IO AO	96.00	10560.
7	OPERATE TACKWELDER AT WELDOUT PROCESS F 96		
	All BO G1 M6 X3 IO AO	96.00	10560.
8	REPLACE SHEETMETAL FROM WELDOUT TO CART AT WELDOUT		
	WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.

TOTAL TMU 55900.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

### File Description ? WELD 5 GORED ELBOW

WELDOR F 4

Output to line-printer <Y or N> ? N

	Output to line-printer <y n="" or=""> ? N</y>		
WELI WEL	9, 3)  • W01 GELBOW.M06  WELD 5 GORED ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP DING BOOTH  GORED ELBOW OFG: 4 14-JT WELDING FOR NASSCO SHEETMETAL SHAPE 5  * 18 GAUGE GALV. SHEETMETAL  * 12'DIAMETER 90 DEGREE ELBOW WITH  *12' RADIUS  * GAS TUNGSTEN ARC WELDING DONE IN WELD  *AREA BOOTH  * FITTER TRANSPORTS SHEETMETAL ASSEMBLY  * WORK PERFORMED BY WELDOR  FITTER BEGINS AT WORKTABLE	UL-83	
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
•	AT WORKTABLE WITH 4 STEPS  Al BO G1 A6 B0 P3 A0	1.00	110.
	FITTER HOVE CART FROM WORKTABLE TO WELDTABLE  Al B0 G1 A131B3 P1 A0  PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
	WELDTABLE WITH 4 STEPS Al B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	370.
6	Al B0 G1 Ml X0 IO Al WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINE 1	1.00	40.
7	WRIST-TURN USING HAND  Al B0 G1 Al B0 P1 P3 A0 B0 P0 A0  WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
•	WELDMACHINE TO ON AT WELDMACHINE  Al B0 G1 M3 X0 IO Al	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8	1.00	
9	A3 B3 G1 A1 B0 P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8	8.00	1120.
10	Al B0 G1 M1 X10 IO A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLED	8.00	1040.
11	Al BO G1 Al BO P6 AO	8.00	720.
	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4  Al B0 G1 M1 X0 IO Al  WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	4.00	160.
12	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 8  Al B0 G1 Al B6 P6 A0	8 00	1200
13	OPERATE WELDING STINGER-BUTTON1 PROCESS F 48		

Al B0 G1 M6 X81 IO A0 48.00 42720. 1 4 WELDOR PUSH WELDHOOOD FROM DOWN AT WELDOR TO UP AT

Al BO G1 M1 XO IO Al

4.00 160.

#### G G EN - W / 1, V. O

15 WELDO USIN 7 )	G WIREBRAUSH 2	ED ASSEMBLY A			[	
16 WELDC	Al B0 G1 R DEBURR WELD	(A1 B0 P1 ED ASSEMBLY A C WELDTABLE AN	T WELDTABLE	1 ARM-STROKE	, ,	12320.
17 REPLA		(A1 B0 P1 ASSEMBLY FRO	- ,	•	) 1.00	2440.
,,		Al BO		P3 A0	1.00	110.
18 FITTE	R MOVE CART F	ROM WELDTABLE Al B0		E P1 A0	1.00	1340.
				TOTAL	TMU	65460.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

SHEEFMERAL SHAPE

### 7" X 3" TO 5" DIA. X 14" LG. OFFSET SQUARE TO LOUND

FAB.	52,210	31 MIN.
MARK out	21,490	13 MIN.
WELD	11,230	7 MIN.
TOTAL TMU.	84,930	51. MIN.

#### uuuu

Type D, EM, CT, EW, EX, L, LD, L

Please input file <0S2RND..M01 ?

File Description ? MARK OUT OFFSET SQUARE TO ROUND

Ouput to line-winter <Y or N> ? N

(39, 3)

FIT .W08 OS2RND ..MOl

MARK OUT SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH AWL AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE' 16

- \* HULL 418
- \* DRAWING 501-082
- \* V2-82008
- \* V6-1542
- \* 20 GAUGE GALV. SHEETMETAL
- \* 7'X3'TO 5'DIA. SQUARE TO ROUND 14'L
- \* OFFSET 10 1/2'
- \* MARK OUT SQUARE TO ROUND WITH A TEMPLATE
- FITTER BEGINS AT WORKTABLE

	1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2		
		Al B0 G1 A6 B0 P3 A0	2.00	220.
2	PO	SITION 2.WEIGHTS FROM WORKTABLE TO TEMPLATE AT		
		WORKTABLE WITH 4 STEPS F 2		
		Al B0 G1 A6 B0 P6 A0	2.00	280.
	3	MARK OUTLINES FROM TEMPLATES TO SHEETMETAL AT WORKTABLE		
		5 DIGITS USING AWL AND ASIDE PF 16 ( 4 5 6 7 )		
		Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (16)	1.00	2920.
	4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT		
	_	WORKTABLE F 38		
		Al BO G1 Al BO P6 AO	38.00	3420.
	5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING		
	_	HAMMER AND ASIDE PF 38 ( 4 5 6 7 ).		
		Al B0 G1 (Al B0 P0 F3 )Al B0 P1 A0 (38)	1.00	1560.
	6	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO		
	•	WORKTABLE WITH 4 STEPS F 2		
		Al BO G1 A6 BO P3 A0	2.00	220.
	7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO		
	•	WORKTABLE WITH 4 STEPS F 2		
		Al BO G1 A6 BO P3 A0	2.00	220.
	8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS		
	_	USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
		Al B0 G1 (Al B0 P1 R16 )Al B0 P1 A0 (16)	1.00	2920.
	9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT	_,,,	
		USING BLACKPEN AT WORKTABLE AND HOLD F 60		
		Al BO G1 Al BO P1 R3 AO BO PO AO	60.00	4200.
	1 0	MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT WORKTABLE	00.00	1200.
	± 0	Al BO G1 Al BO P1 AO	1.00	40.
	11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	10.
		THE TOUR OF STREET IN MODICIAN IN THE		

USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7

	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (52)	1.00	2640.
12 ľ	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING		
	STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (2)	1.00	720.
13 N	MARK. DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (4)	1.00	240.
14 I	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
15 I	HARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE		
	5 DIGITS USING AWL AND ASIDE PF 2 ( 4 5 6 7 )	1 00	
	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)	1.00	400.
16 I	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS		
	USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1 00	
10.	Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (2)	1.00	400.
17 1	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS	1 00	110
10 7	Al BO G1 A6 BO P3 A0	1.00	110.
T 8 I	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1 00	700
	Al B0 G1 A67 B0 P1 A0	1.00	700.
	TOTAL T	MITT	21490.
	IOIAL	1.10	<b>△⊥≒</b> ⊅∪.

Type D,EM,CT,EW,EX,L,LD,L,M,T,W <or H for help> ?

Please input file <0S2RND.M02> ?

#### File Description ? SHEAR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3) FIT .W08

FIT

.W08 OS2RND.SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH

SMALL 8 FT. SHEAR AT SHEETMETAL SHOP PER OFFSET SQUARE TO ROUND

OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE #6

\* HULL 418

\* DRAWING 501-082

\* 'J2-82008

\* V6-1542

\* 20 GAUGE GALV. SHEETMETAL

\* 7'X3' TO 5' DIA. SQUARE TO ROUND'14'L

\* OFFSET 10 1/2'

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO G1 Ml X6 IO AO	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 7		
	Al BO G1 Al BO P6 AO	7.00	630.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 7		
	Al BO G1 Ml X6 IO AO	7.00	630.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 16'STEPS		
	Al BO G1 A32 BO P3 A0	1.00	370.
6	MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		
	Al BO G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU

2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or for help> ?

file Description ? SHEAR RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

FIT .WO8

.WO8 OS2RND SHEAR SHEETMETAL FOR OFFSET SQUARE TO ROUND RADIUS WITH UNI-SHEAR . AT SHEETMETAL SHOP

OFG: 4 31-MAR-83

PER OFFSET SQUARE TO ROUND NASSCO SHEETMETAL SHAPE # 6

\* HULL 418

- \* DRAWING 501-082
- \* V2-82008
- \* V6-1542
- \* 20 GAUGE GALV. SHEETMETAL
- \* 7'X3'TO S'DIA. SQUARE TO ROUND
- \* 14' L OFFSET (OFFSET 10 1/2')
- \* SHEAR RADIUS ON 2 HALVES OF OS2RND
- \* OS2RND = OFFSET SQUARE TO ROUND

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABL WITH 4 STEPS .	Æ
Al BO Gl A6 BO P3 A0	1.00 110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	1 00 1000
A96 BO Gl A96 B3 Pl A0 3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 4	1.00 1970.
Al BO Gl M6 X173IO AO	4.00 .7240.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING	
SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	
Al BO Gl (Al BO P3 Cl ) Al BO Pl AO	
5 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTABL STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 (	
5 6 7 )	7
Al BO Gl (Al BO PO F6) Al BO Pl A0	(12) 1.00 880
6 REPLACE SHEETMETAL2.FROM WORKTABLE TO CART Al- WORKTA	ABLE
WITH 4 STEPS  Al BO Gl A6 B0 P3 A0	1.00 110.
Al BO Gl A6 B0 P3 A0 7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LEAFBRA	
Al BO Gl A81 BO Pl A0	1.00 840.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W<or H for help> ?-

/cl/7P

TOTAL TMU 12190.

Please input file <OS2RND.M04> ?

File Description ? BEND RADIUS FOR OFFSET SQUARE TO ROUND

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .WO8 OS2RND.MO4>?

BEND SHEETMETAL RADIUS FOR OFFSET SQUARE TO.ROUND WITH LEAF BRAKE AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 6

- \* HULL 418
- \* DRAWING 501-082
- \* V2-82008
- \* V6-1542
- \* 20 GAUGE GALV. SHEETMETAL
- \* 7'X3'TO 5'DIA. SQUARE TO ROUND 14'L
- \* OFFSET 10 1/2'
- \* ADJUST ANGLE ON LEAFBRAKE BEFORE BENDING FITTER BEGINS AT LEAFBRAKE

1 PLACE SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFRRAKE WITH 4 STEPS F 2

	I	Al	BO	Gl	Аб	во	Р3	A0	2.00	220.
2	MOVE VISEGRIPS FROM WORKTA	ABLE	TO	LEA	FBRA	KE				
	I	A81	В3	Gl	A81	BO	ΡI	A0	1.00	1670.
3	GRIP LEAFBRAKE ADJUSTMENT	ROD	) TO	LEA	FBRA	KE U	SING			
	VISEGRIPS AND ASIDE									
	Al BO Gl Al E	30	P3	Cl	Al	BO	Pl	A0	1.00	90.
4	OPERATE LEAFBRAKE-LEVER PR	OCE	SS E	· 56						
	I	Al	ВО	Gl	Мб	Xl6	IO	A0	56.00	13440.
5	REPLACE SHEETMETAL FROM L	EAF:	BRAK	E TO	CAF	CA TS	C LE	AFBRAKE		
	WITH 4STEPS F 2									
	I	Al	ВО	Gl	Al	BO	P3	A0	2.00	120.
6	MOVE CART WITH SHEETMETAL	FR	OM I	LEAF	BRAKI	E TO				
	HAND-ROLLER AT WORKBENCH									
	Į.	11	ВО	GL	A10	В3	Pl	A0	1.00	160.

TOTAL TMU 15700.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30,480.

Please input file <OS2RND, MOS> ?

file Description ? FORM COLLAR FOR OFFSET SQUARE TO ROUND Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8 OS2RND

FORM SHEETMETAL FOR OFFSET SQUARE TO ROUND COLLAR WITH HAND OPERATED ROLLER AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE # 6

- \* HULL 418
- \* DRAWING 501-082 .
- \* V2-82008
- \* V6-1542
- \* 20 GAUGE GALV, SHEETMETAL
- \* 7.X3' TO 5'DIA. SQUARE TO ROUND 14' L
- \* OFFSET 10 1/2'

FITTER BEGINS AT WORKBENCH

1 PLACE SHEETMETAL FROM CART AT WORKBENCH TO HAND-ROLLER A-f WORKBENCH WITH 4 STEPS		
AL BO Gl A6 BO P3 AO	1.00	110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT WORKBENCH 5 SPINS USING HAND F 2		
Al BO Gl AL BO Pl FlO AO BO PO AO	2.00	280.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 2		
Al BO Gl M6 X0 IO A0	2.00	160.
4 LOOSEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT		
WORKBENCH 5 SPINS USING HAND	1 00	1.40
Al BO Gl Al BO P1 LlO AO BO PO AO	1.00	140.
5 REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO		
CART AT WORKBENCH WITH 4 STEPS		
Al BO Gl A6 BO P3 A0	1.00	110.
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE		
Al BO Gl A32 BO PI A0	1.00	350 .

TOTAL TMU 1150.

OFG: 4 31-MAR-83

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

31630

Please input file <OS2RND ?

file Description	?	BEND	LAP	ENDS	FOR	OFFSET	SQUARE	TO	ROUND
------------------	---	------	-----	------	-----	--------	--------	----	-------

Output to line-printer <Y or N> ? N

(3913)

FIT .WO8 OS2RND.MO6

BEND SHEETMETAL LAP ENDS FOR OFFSET SQUARE TO ROUND WITH

PAN BRAKE AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND OFG: 4 31-MAR-83

NASSCO SHEETMETAL SHAPE # 6

\* HULL 418

\* DRAWING 501-082

\* V2-82008

\* V6-1542

\* 20 GAUGE GALV+ SHEETMETAL \* 7.X3' TO 5'DIA. SQUARE TO ROUND 14' L

\* OFFSET 10 1/2'

\* KINK UP OR DOWN LAP ENDS AS INDICATED

FITTER BEGINS AT PANBRAKE

1	FASTEN NUT TO PANBRAKE 5 WRIST-STROKES USING 15.16 WRENCH AT PANBRAKE AND ASIDE		
	Al BO Gl Al BO P3 F16 Al BO P1 A0	1.00	240.
2	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 7		
	Al BO Gl A6 BO P6 A0	2.00	280 .
3	OPERATE PANBRAKE-LEVER PROCESS		
	Al BO Gl M6 X96 IO A0	1.00	1040.
4	POSITION SHEETMETAL FROM FANBRAKE TO PANBRAKE F 5		
_	Al BO Gl Al BO F6 A0	5.00	450 •
5		_	
_	Al BO Gl M6 X96 IO AO	5.00	5200 •
6	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS F 2		
	Al BO Gl A6 BO P3 A0	2.00	220 .
7	MOVE CART WITH SHEETMETAL FROM FANBRAKE TO WORKTABLE		
	Al BO Gl AS4 B3 Pl AO	1.00	600.

TOTAL TMU 8030

39,660

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### Please input file (OS2RND

file	Description	2	ASSEMBLE.	OFFSET	SOLIARE	$T\cap$	BUIND
$_{\rm T}$	DESCTIPCTOIL	•	החחויוהטטע		DOOTILE	10	ICOOIND

Output to line-printer <Y Or N> ? N  $(391 \ 3)$ OS2RND.MO7 .WO8 FITASSEMBLE SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP OFG: 4 31-MAR-83 PER OFFSET SQUARE TO ROUND NASSCO SHEETMETAL SHAPE #6 \* HULL 418 \* DRAWING 501-082 \* V2-82008 \* V6-1542 \* 20 GAUGE GALV, SHEETMETAL \* 7.X3' TO 5'DIA. SQUARE TO ROUND 14'L \* OFFSET 10 1/2<sup>n</sup> \* LEAVE TOP END LOOSE TO FIT COLLAR FITTER BEGINS AT WORKTABLE 1 DIACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE

1	PLACE SHEETMETAL 2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 4 STEPS		
	Al BO Gl A6 BO P6 A0	1.00	140.
3	FASTEN 5 / 32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT		
	WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
_	Al BO Gl AO BO (P3 Al F6)A1 BO P1 AO (5)	1.00	540.
4	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL		
	AT WORKTABLE WITH 3 STEPS	1 00	1.40
_	Al BO Gl A6 BO P6 A0	1.00	140.
5	MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1		
	DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )		
	Al BO Gl (Al BO P1 R3) Al BO P1 AO (10)	1.00	540.
6		1.00	510.
·	VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )		
	Al BO Gl (Al BO P3 Cl) Al BO Pl AO (2)	1.00	140.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2		
	Al BO Gl M6 X6 IO A0	2.00	280.
8	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	Al BO Gl Al BO P6 A0	2.00	180.
9	OPERATE R1VETGUN AT WORKTABLE PROCESS F 2		
	Al BO Gl M6 X3 IO AO	2.00	220.
10	MOVE SHEETMETAL FROM WORKTABLE TO WELDOUT		
	Al BO Gl A54 B3 Pl A0	1.00	600.

2890. TOTAL TMU

OFG: 4 31-MAR-83

#### Please input file <OSZRND

file Description ? RIVET OFFSET SQUARE TO ROUND

Output to line-printer <Y or N> ? N

(39, 3)

OS2RND.MO9 FIT .WO8

RIVET SHEETMETAL FOR OFFSET SQUARE TO ROUND WITH RIVET GUN AT SHEETMETAL SHOP

PER OFFSET SQUARE TO ROUND NASSCO SHEETMETAL SHAPE #6

\* HULL 418

\* DRAWING 501-082

\* v2-82008

\* V6-1542

\* 20 GAUGE GALV. SHEETMETAL \* 7'X3' TO 5'DIA. SQUARE TO ROUND 14'L

\* OFFSET 10 1/2'

\* COMPLETE WITH MWELD (M10) FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM FITTER TO WORKTABLE	
	Al BO Gl Al BO P3 A0 1.00	60.
2	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 18	
	Al BO Gl M6 X6 IO A0 18.00	2520.
3	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT	
	WORKTABLE F 18	
	Al BO Gl Al BO P6 A0 18.00	1620.
4	OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F	
	18	
	Al BO Gl M6 X3 IO A0 18.00	1980.
5	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING	
	CAULKINGGUN AND ASIDE PF 6 ( 4 5 6 7 )	
	Al BO G1 (Al BO P3 Cl )Al BO Pl A0 (6) 1.00	340.
6	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	
	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00	100.

TOTAL TMU 6620.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?.

#### File Descrirpion ? WELD OFFSET SQUARE TO ROUND

output to line-printer <Y or N> ? N

(	39.	3)
١.	~ ,	<i>–</i> ,

WELD . .WOl OS2RND.MlO

WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH OFG: 4 18-JUL-83

PER OFFSET SQUARE TO ROUND WELDING NASSCO SHEETMETAL SHAPE 6

- \* HULL 418 \* DRAWING 501-082 \* v2-82008
- \* V6-1542

	* 20 GAUGE GALV. SHEETMETAL  * 7X3 TO 5' DIAMETER SQUARE TO ROUND  *14' LG OFFSET 10 1/2'  * WELDER PERFORMS THE WORK  * FITTER TRANSPORT SHEETMETAL  FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS  Al BO Gl A6 BO P3 A0	1.00	110.
2	FITTER MOVE CART FROM-WORKTABLE TO WELDTABLE		
3	Al BO Gl A131B3 Pl A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
4	WELDTABLE WITH 4 STEPS.  Al BO Gl A6 BO P3 A0	1.00	110.
	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 BO G1 M1 X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES Al BO Gl Ml X0 IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
7	Al BO Gl Al BO Pl F3 AO BO PO AO WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	70.
8	Al BO Gl M3 X0 IO Al WELDMACHINES  Al BO Gl M3 X0 IO Al  WELDOR POSITION ANTS-SPATTER SPRAY CAN FROM WELDTABLE  TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2	1.00	60.
0	A3 B3 Gl Al BO P6 A0	2.00	280.
	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2  Al BO Gl Ml X10 IO A0	2.00	260.
Τ0	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3		
11	Al BO Gl Al BO F6 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 5	3.00	270.
12	Al BO Gl Ml X0 IO Al WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3	5.00	Rāā •
13	Al BO Gl Al B6 P6 A0 OPERATE WELDING STINGER-BUTTON1 PROCESS F 5	3.00	450.
	Al BO Gl H6 X81 IO AO PUSH WELDHOOD FROM DOWN AT WELDOR.TO UP AT WELDOR F 5	5.00	4450.

OSZEND. MIO

	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
15	Al BO Gl Ml X0 IO Al WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE- 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF SO ( 4 5 6 7	5.00	200.
16	Al BO Gl (Al BO Pl Cl) Al BO Pl AO (50) REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS	1.00	1540.
	Al BO Gl A6 BO P3 A0	1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE		
	Al BO Gl A131BO Pl A0	1.00	1340.
	TOTAL TM	IU	11230.
	TOTAL II.	10	TT7200.

Type D,EM,CT,EW,EX,L,LD,LS,M,W <or H for help> ?

# SHEET METAL SHAPE 6

### 20"X 15" to 17"0/A. X 30"LG OFFSET SQUARI to ROUND

FAB	95990	57 MIN.
MARK OUT	3 0 7 3 0	18 MIN
WELD	27380	16 MIN
TO FAL TMU.	154100	92 MIN .

## File Description ? MARK OUT SHEETMETAL FOR SQUARE TO ROUND OFF CENTER File Description ?

Outbut to line-printer (Y or N> ? N

FIT SHEE	9, 1) .Wll OSQ2RN.M20 MARK out SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH ETMETAL SHOP SQUARE TO ROUND OFF CENTER OFG: 4 11-M2 NASSCO SHEETMETAL SHAPE 6		
	* 18GAUGE GALV. SHEETMETAL  * 20'X15' TO 17' DIA. 30'L OFFSET LO'  * MARK OUT WITH TEMPLATE  * MARK OUT COLLAR WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2	2 00	220
2	Al BO Gl A3 BO P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	2.00	
3	Al BO Gl A6 BO P6 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL 'AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	6.00	840.
4	Al BO Gl (Al BO Pl R16 )Al BO Pl AO (16) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 76	1.00	2920.
5	Al BO Gl A3 BO P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 76 ( 4 5 6 7 )	76.00	8360.
6	.A1 BO Gl (Al BO PO F3 ) A1 BO Pl A0 (76) REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6	1.00	3080.
7	Al BO Gl A6 BO P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2	6.00	660.
8	Al BO Gl Al BO P3 AO MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7)	2.00	120.
9	Al BO Gl (Al BO Pl R16) Al BO pl AO (16) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
10	ASIDE PF 70 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3) Al BO Pl A0 (70)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	3540.
11	Al BO Gl (Al BO Pl R3 )Al BO Pl A0 (52) MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
12	STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7)  Al BO Gl (Al BO Pl M32 ) Al BO Pl A0 (3)  MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	1060.
	AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R3 )A1 BO Pl A0 (3)	1.00	190.

1	3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
1	Al BO Gl A6 BO P6 A0	2.00	280.
1	4 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
1	Al BO Gl (Al BO Pl R16 )A1 BO Pl A0 (2) 5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	400.
_	USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
1	Al BO Gl (Al BO Pl R16 )Al BO Pl A0 (2) 6 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	400.
_	USING BLACKPEN AT WORKTABLE AND ASIDE PF 27 ( 4 5 6 7		
	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (27)	1.00	1390.
1	7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7		
1	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (15) 8 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	790.
	WITH 4 STEPS F 2	0.00	
1	Al BO Gl A6 BO P3 A0 9 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	2.00	n n ≏ •
	Al BO Gl A67 BO Pl A0	1.00	700.
	TOTAL TM	Ū	30730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

## File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER output to line-printer <Y or N> ? N

( 39, 1) FIT .Wll OSQ2RN.M21		
SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH		
SMALL 8FT. SHEAR AT SHEETMETAL SHOP		
PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MA	7X-83	
NASSCO SHEETMETAL SHAPE 6		
* 18 GAUGE GALV. SHEETMETAL * 20'X15'TO 17'DIA. 30'L OFFSET 10'		
* 2 FITTERS REQUIRED FOR FIRST 2 CUTS		
* CUT 1 1/2' STRIPS FOR COLLAR		
FITTER BEGINS AT SMALLSHEAR		
1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
Al BO Gl A6 BO P6 A0	2.00	280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	2 00	180.
Al BO Gl Ml X6 IO A0 3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH	2.00	180.
3 STEPS F 8		
Al BO Gl A6 BO P6 A0	8.00	1120.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8		
Al BO Gl Ml X6 IO A0	8.00	720.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT		
SMALLSHEAR WITH 10 STEPS F 2  Al BO Gl Al6 BO P3 A0	2.00	420.
6 MOVE CART WITH SHEETMETAL& FROM SMALLSHEAR TO WORKTABLE	2.00	120.
Al BO Gl A67 B3 Pl A0	1.00	730.

TOTAL TMU

3450.

type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER
Output to line-printer <Y or N> ? N

( 39, 1) FIT .Wll OSQ2RN,M21

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH

SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

\* 18 GAUGE GALU, SHEETMETAL

\* 20'X15' TO 17'DIA. 30'L OFFSET 10'

\* 2 FITTERS REQUIRED FOR FIRST 2 CUTS

\* CUT 1 1/2' STRIPS FOR COLLAR

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	Al BO Gl A6 BO P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	Al BO Gl Ml X6 IO AO	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 3 STEPS F 8		
	Al BO Gl A6 BO P6 A0	8.00	1120.
4	PUSH FOOTPEDAL AT SMALLSHEAR FROCESS F 8		
	Al BO Gl Ml X6 IO AO	8.00	720.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 10 STEPS F 2		
	Al BO Gl Al6 BO P3 AO	2.00	420.
6	MOUE CART WITH SHEETMETA122, FROM SMALLSHEAR TO WORKTABLE	1 00	720
	Al BO Gl A67 B3 Pl A0	1.00	730.

TOTAL TMU 3450.

type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER

#### \*\*Doutput to line-printer <Y or N> ? N

(391, 1)

FIT.W11 OSQ2RN.M22

SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER WITH UNI-SHEAR AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

- \* 18 GAUGE GALV, SHEETMETAL \* 20'X15'TO 17' DIA. 30'L OFFSET 10'
- \* CUT OUT CORNER NOTCHES WITH SNIPS
- \* FLATTEN CORNERS AFTER CUTTING

FITTER BEGINS AT WORKTABLE

1	PLACE	E SHEETMETAL		. 2	FROM	CART	AT	WORKTABLE	TO	WORKTABLE	
	WITH	4	STEPS	F	2						

	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 6		
	A1 B0 G1 M6 X17310 A0	6.00	10860.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (12)	1.00	8 8 0
5	FASTEN [FLATTEN] SHEETMETAL CORNERS 3 STRIKES USING		
	HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
_	A1 BO G1 (A1 BO PO F6 )A1 BO P1 A0 (12)	1.00	880 .
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS		
	A1 BO G1 A6 BO P3 A0	1.00	110.
7	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT		
	A1 BO G1 A54 BO P1 A0	1,00	570 .

TOTAL TMU 15490 •

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER Output to line-Printer <Y or N> ? N

( 39, 1)

FIT ● W11 OSQ2RN.M23

FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 11-MAY-83

NASSCO SHEETMETAL SHAPE 6

\* 18 GAUGE GALV. SHEETMETAL \* 20'X15' TO 17' DIA. 30'L OFFSET 10'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2

		A1	В0	G1	Аб	в0	P3	A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCES	SS F	2							
		A1	В0	G1	Ml	Xl6	IO	A0	2.00	380.
3	PUSH AND GUIDE SHEETMETA	L TH	IROU	GH L	APOU'	T WIT	rh 3	STEPS		
		Аб	в0	G1	Ml	X0	I3	A0	1.00	110.
4	REPLACE SHEETMETAL2 FROM	LAP	TUC	TO C	'ART	AT L	APOU'	r With		
	4 STEPS F 2									
		A1	в0	G1	Аб	в0	Р3	A0	2.00	220.
5	MOVE CART WITH SHEETMETA	L2 F	ROM	LAPC	T TUC	O HA	ND-R	OLLER		
	AT WORKBENCH									
		A1	в0	G1	A24	В3	Р1	A0	1.00	300.

TOTAL TMU 1230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description? FORM COLLAR FOR SQUARE TO ROUND OFF CENTER

(39, 1)

FIT W11 OSQ2RN.M24

to line-printer <Y or N> ? N

FORM COLLAR FOR SQUARE TO ROUND OFF CENTER WITH HAND-ROLLER AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6
\* 18 GAUGE GALV. SHEETMETAL

\* 20' X 15' TO 17'DIA. 30'L OFFSET 10'

FITTER BEGINS AT WORKBENCH

1	PLACE	SHEETME	TAL F	'RO	M-CART	AT	WORKBENCH	TO	HAND-R	OLLER
	AT WO	RKBENCH	WTTH	4	STEPS					

	Al BO G1 A6 BO P3 A0	1.00	110.
2 ]	FASTEN BOLT [ROLLS] TO SHEETMETAL2 ON HAND-ROLLER AT		
	WORKBENCH 5 SPINS USING FINGERS F 3		
	Al BO G1 Al BO P1 F10 AO BO PO AO	3.00	420.
3 (	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 3		
	Al BO G1 M6 X0 IO AO	3.00	240.
4 J	REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO		
	CART AT WORKBENCH WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
5 1	MOUE CART WITH SHEETMETAL FROM WORKBENCH TO		
	CORNICEBRAKE		

TOTAL TMU 1230.

A1 B0 G1. A32 B0 P1 A0 1.00 350.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER

#### to line-Printer <Y or N> ? N

( 39, 1)  FIT .Wll OSQ2RN.M25  BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH CORNICE BRAKE AT SHEETMETAL SHOP  PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83  NASSCO SHEETMETAL SHAPE 6  * 18 GAUGE GALV. SHEETMETAL  * 20'X15' TO 17'DIA. 30'L OFFSET 10'  * SET LEAF ON BRAKE WITH VISEGRIPS  FITTER BEGINS AT CORNICE BRAKE	
1 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO CORNICEBRAKE WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P6 A0 2.00 2 MOUE VISEGRIPS FROM WORKTABLE TO CORNICEBRAKE	280.
A54 B3 G1 A54 B0 P1 A0 1.00	1130.
3 GRIP ADJUSTMENT ROD AT CORNICEBRAKE USING VISEGRIPS AT	
CORNICEBRAKE AND 'ASIDE A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0 1.00	90.
4 OPERATE CORNICEBRAKE -LEVER PROCESS F 2	
Al B0 G1 M6 X42 IO A0 2.00 5 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRAKE	1000.
F 66	
A1 B0 G1 A1 B0 P6 A0 66.00	5940.
6 OPERATE CORNICEBRAKE-LEVER PROCESS F 66  A1 B0 G1 M6 X42 I0 A0 66.00 3	33000.
7 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CAR-i' AT	33000.
CORNICEBRAKE WITH 4 STEPS F 2	
Al B0 G1 A6 B0 P3 A0 2.00 8 MOUE CART WITH SHEETMETAL FROM CORNICEBRAKE TO	220.
PANBRAKE	
A1 B0 G1 A10 B0 P1 A0 1.00	130.
TOTAL TMU	41790.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER output to line-printer (Y or N> ? N

1	20	1	١.
(	37,		,

FIT :.w11 OSQ2RN.M26

BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER WITH PAN BRAKE AT SHEETMETAL SHOP OFG: 4 12-MAY-83

PER-SQUARE TO ROUND OFF CENTER

NASSCO SHEETMETAL SHAPE 6

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X15' TO 17'DIA. 30'L OFFSET 10'
- \* SELECT AND ADJUST FINGERS ON PAN BRAKE

FITTER BEGINS AT PANBRAKE

1	FASTEN BOLT TO PANBRAKE 5 WRIST-STROKES USING 15.16 WRENCH AT PANBRAKE AND ASIDE PF 2 ( 4 5 6 7 )					
2	A1 B0 G1 (A1 B0 P3 F16 )A1 B0 P1 A0 (2)  POSITION SHEETMETAL2 FROM CART AT PANBRAKE TO PANBRAKE	1.00	440.			
4	WITH 4 STEPS F 2					
	A1 B0 G1 A6 B0 P6 A0	2.00	280.			
3	OPERATE PANBRAKE -LEVER PROCESS F 2					
,	A1 B0 G1 M6 X96 IO A0	2.00	2080.			
4	POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE F 4					
	A1 B0 G1 A1 B0 P6 A0	4.00	360.			
5	OPERATE PANBRAKE-LEVER PROCESS F 4					
	Al BO G1 M6 X96 IO AO	4.00	4160.			
	6 REPLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE					
	WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	110.			
7	MOUE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE					
,	A1 B0 G1 A54 B3 P1 A0	1.00	600.			
	1.2 20 01 1131 23 11 110					

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

71220

8030.

#### File Description ? ASSEMBLE SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

( 39, 1) FIT .Wll OSQ2RN.M27

ASSEMBLE SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH HAMMER AT

SHEETMETAL SHOP PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'XlS' TO 17'DIA. OFFSET 10'
- \* RIVET ASSEMBLY AT BOTTOM WITH 2 RIVETS--
- \* -ONLY SO COLLAR CAN BE FITTED AT WELDOUT FITTER BEGINS AT WORKTABLE

1	POSITION	SHEETMETAL	FROM	WORKTABLE	TO	SHEETMETAL	ΑT
	WORKTABI	Æ					

	WORKTABLE		
	A1 B0 G1 A1 B0 P6 A0	1.00	90.
2	GRIP SHEETMETAL AT WORKTABLE TO SHEETMETAL AT WORKTABLE		
	USING VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 C1 ) A1 B0 F1 A0 (2)	1.00	140.
3	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AND ASIDE		
	Al BO Gl Al BO P3 F6 Al BO P1 AO	1.00	140.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2		
	A1 B0 G1 M6 X6 IO A0	2.00	280.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
6	OPERATE RIVETGUN AT WORKTABLE PROCESS F 2		
	Al BO Gl M6 X3 IO AO	2.00	220.

TOTAL TMU 1050.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

72,270

File Description ? TACK WELD COLLAR TO SQUARE TO ROUND OFF CENTER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 OSQ2RN.M28

TACK WELD COLLAR ON SQUARE TO ROUND OFF CENTER WITH TACK WELDER AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFF CENTER OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 6

\* 18 GAUGE GALV. SHEETMETAL

- \* 20'X15' TO 17'DIA. 30'L OFFSET 10'
- \* FIT & HOLD COLLAR TO ASSEMBLY WITH --
- \* --VISEGRIPS WHILE TACK WELDING
- \* COMPLETE WELDING IN WELDING AREA
- \* SEE OSQ2RN.M29 FOR WELDING

FITTER BEGINS AT WORKTABLE

1	MOUE VISEGRIPS. SHEETMETAL2 FROM WORKTABLE TO WELDOUT  Al BO Gl A54 B3 Pl A0 1.00	600.
2	PLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO SHEETMETAL 2	
	AT WELDOUT	
	A1 B0 G1 A54 B3 P3 A0 1.00	620.
3	GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING	
	VISEGRIPS AT WELDOUT AND ASIDE PF 10 ( 4 5 6 7 )	
	A54 B3 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (10) 1.00	1100.
4	OPERATE TACKWELDER PROCESS F 12	
	A1 B0 G1 M6 X3 IO A0 12.00	1320.
5	MOUE VISEGRIPS , SHEETMETAL2 FROM WELDOUT TO WORKTABLE	
	A1 B0 G1 A54 B3 P1 A0 1.00	600.
	TOTAL TMU	4240.

Type D,EM, CT, EW, EX, L, LD, LS, M, T ,W <or H for help> ?

76,510

#### File Description ? WELD OFFSET SQUARE TO ROUND

Output to line-Printer <Y Or N> ? N

( 39, 3) WELD .WO1

14

OSQ2RN.M29

WELD OFFSET SQUARE TO ROUND WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH OFG: 4 18-JUL-83 PER OFFSET SQUARE TO ROUND

WELDING NASSCO SHEETMETAL SHAPE 6

- \* 18 GAUGE GALV. SHEETMETAL \* 20'X15' TO 17' DIAMETER OFFSET 10'
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE.

	FITTER DEGING AT WORKTABLE.		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE	1 00	1270
2	Al B0 G1 A131B3 Pl A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
3	WELDTABLE WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	1.00	110.
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 Gl Ml X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES		
	TO ON AT WELDMACHINES	1 00	4.0
_	Al BO Gl Ml XO IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1		
	WRIST-TURN USING HAND Al B0 Gl Al B0 Pl F3 A0 B0 PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
,	WELDMACHINES TO ON AT WELDMACHINES		
	Al BO Gl M3 XO IO Al	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE		
	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2		
•	A3 B3 G1 A1 B0 P6 A0	2.00	280.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2	2 00	260.
1 0	Al B0 Gl Ml X10 IO A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	2.00	260.
ΤU	ASSEMBLY AT WELDTABLE F 4		
	ASSEMBLI AI WELDIADLE I 4  Al BO Gl Al PO P6 AO	4.00	360.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 8		
	Al BO Gl Ml XO IO Al	8.00	320.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL		
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4		
1 2	Al BO Gl Al B6 P6 A0	4.00	600.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 18  Al B0 Gl M6 X81 IO A0	18.00	16020.
דזמ	Al B0 G1 M6 X81 IO A0 SH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 8	18.00	16020.
PU	Al BO Gl Ml X0 IO Al	8.00	320.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE	0.00	320.
	USING WIREBRUSH AT WELDTABLE AND ASIDE PF 30 ( 4 5 6 7		
	) F 6		

	VOQCRN M CY		
	Al BO Gl (Al BO Pl Cl )Al BO Pl AO (30)	6.00	5640.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
	WELDTABLE WITH 4 STEPS		
	A2 BO G2 A6 BO P3 <b>A0</b>	2.00	110.
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE		
	A2 BO G1 A131B0 Pl A0	1000	1340.
	TOTAL TM	IU	27380.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? RIVET SQUARE TO ROUND OFF CENTER

Output to line-Printer <Y or N> ? N

( 39, 1) FIT • W11 OSQ2RN.M30

RIVET SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH RIVET GUN AT SHEETMETAL SHOP

OFG: 4 12-MAY-83 PER SQUARE TO ROUND OFF CENTER

NASSCO SHEETMETAL SHAPE 6

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X15' TO 17'DIA. OFFSET 10'
- \* COMPLETE RIVETING AFTER COLLAR IS WELDED

FITTER BEGINS AT WORKTABLE

1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMET AT WORKTABLE WITH 3 STEPS AND ASIDE	TAL 1.00	140.
AT WORKTABLE WITH 3 STEPS AND ASIDE	1.00	140
	1.00	
Al BO Gl A6 BO P6 A0		140.
2 MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1	L	
DIGIT USING BLACKPEN AND ASIDE PF 40 ( 4 5 6 7 )		
Al BO Gl (Al BO Pl R3 )Al BO Pl AO	(40) 1.00	2040.
	(40) 1.00	2040.
3 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
WORKTABLE F 40		
Al BO Gl Al BO P6 AO	40.00	3600.
4 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 40		
	40 00	E 6 0 0
Al BO G1 M6 X6 IO AO	40.00	5600.
5 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT		
WORKTABLE F 40		
Al BO Gl Al BO P6 AO	40.00	3600.
112 20 01 112 20 10 110	10.00	3000.
6 OPERATE RIVETGUN AT WORKTABLE PROCESS F 40		
Al BO Gl M6 X3 IO AO	. 40.00	4400.

A0 B0 GO A0 B0 PO T10 A0 B0 PO A0 1.00

TOTAL TMU 19480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

95990

100.

## SHEEF METAL SHAPE #6

## 12"X8" TO 10"DIA SQUARE TO ROUND WITH 3"OFFSET

FAB	27,770	IT MIN.
MARK out	18360	11 MIN.
WELD	34 300	ZO MIN.
TOTAL TMU.	80,430	48 MIN.

#### File Description ? MARK OUT SQUARE TO ROUND WITH OFFSET

Τ.		
( 3	9, 1)	
ĖІТ	*W11	
	MARK OUT SQUARE TO ROUND OFF CENTER WITH AWL AT SHEETMETAL SHOP	P
PER	SQUARE TO ROUND OFG: 4 25-MAY-83	
	NASSCO SHEETMETAL SHAPE 6	
	* 11 GAUGE GALV. SHEETMETAL * 12'X8'X10' DIAMETER SQUARE TO ROUND	
	* WITH 3' OFFSET	
	* MARK OUT USING TEMPLATE	
	* MARK OUT COLLAR WITHOUT TEMPLATE	
	FITTER BEGINS AT WORKTABLE	
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	
	WORKTABLE WITH 3 STEPS F 2	000
2	Al BO Gl A6 BO P6 AO 2.00	280.
۷	POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	
	Al BO G1 A6 BO P6 A0 2.00	280.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5	200.
	DIGITS USING AWL AT WORKTABLE AND ASIDE	
	Al BO G1 Al BO Pl R16 Al BO Pl AO 1.00	220.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	
	WORKTABLE WITH 2 STEPS F 28	
_	Al BO Gl A3 BO P6 AO 28.00	3080.
5	FASTEN CPUNCH TO SHEETMETAL AT WORTKABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 28 ( 4 5 6 7 )	
	Al BO Gl (Al BO PO F3 )Al BO Pl AO (28) 1.00	1160.
6	REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO	1100.
	WORKTABLE WITH 3 STEPS F 4	
	Al BO Gl A6 BO P3 A0 4.00	440.
7	REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO	
	WORKTABLE WITH 3 STEPS F 2	220
Ω	Al B0 Gl A6 B0 P3 A0 2.00  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	220.
O	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	
	Al B0 Gl (Al B0 Pl R16 )Al B0 Pl A0 (6) 1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	
	ASIDE PF 98 ( 4 5 6 7 )	
1.0	Al BO Gl (Al BO Pl R3 )Al BO Pl AO (98) 1.00	4940.
10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BALCKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	
	OSING DALEKTEN AT WORKTADEE AND ASIDE IT 52 ( 4 5 0 7	
	Al B0 G1 (Al B0 Pl R3 )A1 B0 Pl A0 (52) 1.00	2640.
1	1 MEASURE DIMENSIONS ON SHEETMETAL [FOR COLLAR] AT	
_	WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2	
	(4567)	700
	Al BO Gl (Al HO Pl M32 )Al BO Pl AO (2) $1.00$	720.
12	2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	
	USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	140.
1	Al B0 Gl (Al B0 Pl R3 )Al B0 Pl A0 (2) $^{1.00}$ .3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	± 10 •
	WORKTABLE WITH 3 STEPS F 2	

Al B0 Gl A6 B0 F6 14 MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS ( AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	A0 JSING	2.00	280.
Al B0 Gl (Al B0 Pl R16 )A1 B0 Pl 15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGI	TS	1.00	400.
USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 Al B0 Gl (A2 B0 Pl R16 )Al B0 Pl 16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	Ã0 (2)	1.00	4 0 0 .
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE A ASIDE PF 6 ( 4 5 6 7 )			
Al B0 G2 (Al B0 Pl R3 )Al B0 P1 17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 USING BLACKFEN AT WORKTABLE AND ASIDE PF 12 ( 4	DIGIT	1.00	340.
Al B0 G1 (Al B0 Pl R3 )A1 B0 P1 18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORK WITH 4 STEPS F 2		1.00	640.
Al B0 Gl A6 B0 P3  19 MOVE CART FROM WORKTABLE TO 14FT. SHEAR	A0	2.00	220.
Al BO Gl A81 BO Pl	A0	1.00	840.
	TOTAL TM	IJ 1	18360.
	= 0 = = = = = = = = = = = = = = = = = =	-	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER

utput to line-printer <Y or N> ? N

( 39, 1) FIT \*W11

OSQ2RN

SHEAR SHEETMETAL FOR SQUARE TO ROUND OFF CENTER WITH 14FT. SHEAR AT SHEETMETAL SHOP PER SQUARE TO ROUND OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

- \* 11 GAUGE GALV. SHEETMETAL \* 12'X8'X10' DIAMETER SQUARE TO ROUND
- \* WITH 3' OFFSET
- \* SHEAR 1 1/2' STRIP FOR COLLAR FITTER BEGINS AT 14FT. SHEAR

1	POSITION SHEEMETAL2 FROM 14FT. SHEAR WITH 4 STEPS		AT	14F7	C. SH	EAR	TO			
	TILL SILLING WITH I SILLS	Al	В0	Gl	Аб	В0	Fб	A0	2.00	280.
2	PUSH 14FT. SHEAR-FOOTPEDA	L PR	OCES	SF	2					
		Al	В0	G1	Ml	Х3	IO	A0	2.00	120.
3	POSITION SHEETMETAL FROM	14FT	'. SI	HEAR	TO 1	4FT.	. SHE	AR WITH		
	2 STEPS F 13									
		Al	В0	Gl	A3	B0	Р6	A0	13.00	1430.
4	PUSH 14FT. SHEAR-FOOTPEDAT	L PR	OCES	SF	13					
		Al	В0	Gl	Ml	х3	IO	A0	13.00	780.
5	REPLACE SHEETMETAL FROM :	14FT	. SH	EAR	TO C	ART	ΑT			
	14FT. SHEAR WITH 4 STEPS									
		Al	в0	Gl	Аб	В0	F3	A0	1.00	110.
6	MOUE CART FROM 14FT. SHEA	R TO	WOI	RKTAI	3LE					
		Al	В0	Gl	A81	В3	Р1	A0	1.00	870.

TOTAL TMU

3590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR SQUARE TO ROUND OFF CENTER

utput to line-Printer <Y or N> ? N

( 39, 1) FIT .W11

.W11 OSQ2RN CUT RADIUS FOR SQUARE TO ROUND OFF CENTER WITH SABER-SAW AT SHEETMETAL SHOP

OFG: 4 25-MAY-83 PER SQUARE TO ROUND

NASSCO SHEETMETAL SHAPE 6

\* 11 GAUGE GALV. SHEETMETAL

\* 12'X8'X10' DIAMETER SQUARE TO ROUND

\* WITH 3' OFFSET

\* CUT RADIUS AND CORNERS

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G2 A6 B0 P3 A0	2.00	220.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE SABER-SAW PROCESS F 3		
	Al BO G1 M6 X67 IO AO	3.00	2250.
4	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
5	MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE		
	AL B0 G1 A96 B0 F1 A0	1.00	990.

TOTAL TMU 5540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

## File Description ? BEND RADIUS FOR SQUARE TO ROUND OFF CENTER utput to line-Printer <Y or N> ? N

( 39, 1)  FIT .W11 OSQ2RN.  BEND RADIUS FOR SQUARE TO ROUND OFF CENTER WITH  14FT HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP  PER SQU OFG: 4 25-MZ  NASSCO SHEETMETAL SHAPE 6  * 11 GAUGE GALV. SHEETMETAL  * 12'X8'X10' DIAMETER SQUARE TO  *ROUND WITH 3' OFFSET  FITTER BEGINS AT 14FTHYDROPRESSBRAKE	/Y-83	
1 POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE		
TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2 A1 B0 G1 A6 B0 F6 A0	2.00	280.
2 PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS		0=0
A1 B0 G1 M1 X24 I0 A0 3 POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO	1.00	270.
14FTHYDROPRESSBRAKE WITH 3 STEPS F 25		
A1 B0 G2 A6 B0 P6 A0	25.00	3500.
4 PUSH 14FTHYDROPRESSBRAKE-FOOTPEDAL PROCESS F 25 A1 B0 G1 M1 X24 IO A0	25.00	6750.
5 REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT	23.00	0730.
14FTHYDROPRESSBRAKE WITH 4 STEPS		
A1 B0 G1 A6 B0 P3 A0 6 MOUE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER	1.00	210.
Al BO G1 A54 BO F1 A0	1.00	570.
		J. J.
TOTAL TM	/ITT	11480.
IOIAL II	10	TT400.

2 0 , 6 1 0

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? FORM COLLAR FOR SQUARE TO ROUND OFF CENTER

#### Juteut to line-Printer <Y or N> ? N

(	39,	1)
1	J ,	/

FIT • W11  $\bullet$  W11  $$\operatorname{\mathsf{OSQ2RN}}$  FORM COLLAR FOR SQUARE TO ROUND UFF CENTER WITH

ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER SQUARE TO ROUND OFG: 4 25-MAY-83

NASSCO SHEETMETAL SHAPE 6

\* 11 GAUGE GALV. SHEETMETAL \* 12'X8'X10' DIAMETER SQUARE TO ROUND--\* -- WITH 3' OFFSET

\* COMPLETE IN WELD BOOTH AREA

\* SEE MWELD...SEE OSQ2RN.M75

FITTER BEGINS AT ROLLER

1 POS	ITION	SHEETMETAL	FROM	CART	AT	ROL	LER	ТО	ROLL	ER WITH	
4	STE	PS		7v 1 1	<b>2</b> ∩	C1	7.6	DΛ	Р6	7. ()	1

				A1	в0	G1	Аб	в0	Р6	A0	1.00	140.
2	FASTEN NUT	[ROLLS]	TO	SHEET	METAL	AT	' ROL	LER	3			
	WRIST-TURNS	USING :	HAND	AND	ASIDE	F	4					

A1 B0 G1 A1 B0 P1 F6 A1 B0 P1 A0 4.00 480. 3 PUSH ROLLER-BUTTON PROCESS F 4 4.00 3960.

Al B0 G1 Ml X96 I0 A0 4 POSITION SHEETMETAL [COLLAR] FROM WORKTABLE TO SHEETMETAL [SQUARE TO ROUND] AT WORKTABLE WITH 2 STEPS F 2

2.00 1340. A54 B-3 G1 A3 B0 P6 A0 5 REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH

A54 B0 G1 A6 B0 P3 A0 1.00 640. 6 MOUE CART FROM ROLLER TO WORKTABLE

A2 B0 G1 A54 B3 P1 A0 1.00 600.

> TOTAL TMU 7160.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27,770

#### File Description ? WELD OFFSET SQUARE TO ROUND

utput to line-printer <Y or N> ? N

(39,101)

WELD \*W01

OSQ2RN.M72

WELD OFFSET SQUARE TO ROUND WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH PER OFFSET SQUARE TO ROUND OFG: 4 19-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 6

- \* 11 GAUGE GALV. SHEETMETAL \* 12'X8'X10' DIAMETER SQUARE TO ROUND-\* -WITH 3' OFFSET X20' L
- \* WELDING DONE IN WELD AREA BOOTH \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE'

	FITTER BEGINS AT WORKTABLE'		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
•	Al B0 G1 A6 B0 P3 A0	2.00	220.
	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE Al B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	0.00	222
4	Al B0 G1 A6 B0 P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
6	Al B0 G1 M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
7	A3 B3 G1 A1 B0 P6 A0	4.00	560.
	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4 Al B0 G1 Ml X10 IO A0	4.00	520.
8	WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1 WRIST-TURN USING HAND. F 16		
	Al BO G1 Al BO P1 F3 AO BO PO AO	16.00	1120.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 16	16.00	6.40
10	Al B0 G1 Ml X0 IO A1 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL	16.00	640.
	ASSEMBLY AT WELDTABLE F 16  Al BO G1 Al BO P6 AO	16.00	1440.
11	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F	10.00	1440.
	Al BO G1 M6 X173IO AO	12.00	21720.
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 16	12.00	
	Al BO G1 Ml XO IO Al	16.00	640.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
14	Al B0 G1 (A1 B0 PO L16 )A1 B0 P1 A0 (6) WELDOR DEBURR WELDED ASSEMBLY AT WELDTARLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 23 (4567)	1.00	1060.

USQZEN M7Z

			7740	, , ,			
	A1 B0 G	1 (A1 B0	P1 C10	)A1 B0	P1 A0 (2	3) 1.00	2800.
		L ASSEMBLY	FROM WEL	DTABLE TO	O CART AT		
WELDTAI	BIÆ WITH 4	STEPS F 2					
,,			B0 G1	A6 B0	P3 A0	2.00	220.
16 FITTER M	OVE CART	FROM WELDTA	BLE TO W	ORKTABLE			
				A131B0		1.00	1340.
					TOTAL	TMU	34300,

File Description ? WELD OFFSET SQUARE TO ROUND Output to line-printer <Y or N> ?

SHEEF METAL SHAPE

# 7-1/2" X6" X90" WIFH 7/2" RADIUS ELBOW

FAB	40280	24	MIN.
MARK OUT	20360	· 12	MIN.
TOTAL TMU.	60,580	36	MIN.

#### File Description ? MARK OUT ELBOW (\*.7) CHEEKS

#### Output to line-printer $\langle Y \text{ or } N \rangle$ ? N

: <b>:</b>			
	9, 3) .W04 ELBOW .MO1 MARK SHEETMETAL FOR ELBOW (* 7) CHEEKS WITH AWL AT SHEETMET	ΓAL	
	ELBOW (* 7)  NASSCO SHEETMETAL *# 7  * U.S. S. CAPE COD  * WORK ORDER 3070-339  * SKETCH 737  * 20 GAUGE GALV. SHEETMETAL  * DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD  * MARK OUT TOP & BOTTOM CHEEKS  * USING TEMPLATE  FITTER BEGINS AT WORKTABLE	33	
1	PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0 2.	.00	220.
2	PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )	.00	220 .
4	REPLACE 1 WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	.00	1480.
5	Al BO G1 A6 BO P3 AO 2. REPLACE 1 TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	.00	220.
6		.00	110.
7	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (60) 1 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	.00	3040.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	.00	1940.
	USING BLACKPEN AND ASIDE PF 46 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (46) 1.	.00	2340.
	TOTAL TMU		9570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

File Description ? MARK OUT ELBOW THROAT & HEEL utput to line-printer <Y or N> ? N

FIT I SHEET	*W04 ELBOW .M02  MARK OUT SHEETMETAL FOR ELBOW THROAT & HEEL WITH AWL AT IMETAL SHOP  ELBOW OFG: 4 03-MAF  NASSCO SHEETMETAL PART * 7  * U.S.S. CAPE COD  * WORK ORDER 3070-339  * SKETCH 737  * 20 GAUGE GALV. SHEETMETAL  * DIMEN: 7 1/2'X6'X90DEGREESX7 1/2'RAD  * LAYOUT THROAT & HEEL WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE	2-83	
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 1 2 3 4 5 6 7		
2	(A1 B0 G1 Al B0 P1 M32 )A1 B0 P1 A0 (6) MARK SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	2180.
3	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (6) POSITION STRAIGHT-EDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 )	1.00	340 •
4	Al B0 G1 (A1 B0 P6 )A0 (3) PLACE CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	1.00	230.
5	WORKTABLE F 8  Al B0 G1 Al B0 P3 A0  MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL 2	3.00	480.
6	DIGITS USING AWL AND ASIDE PF 8 ( 1 2 3 4 5 6 7 )  (A1 B0 G1 Al B0 P1 R6 )A1 B0 P1 A 0 (8)  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	320.
7	REDPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (540) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	2540.
8	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 41 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (41)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7	1.00	2090.
9	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (24) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 3 STEPS	1.00	1240,
10	Al BO G1 A6 B0 P3 A0 MOVE CART FROM WORKTABLE TO SMALLSHEAR	1.00	110.
	Al B0 G1 A67 B0 Pi A0	1.00	700.
	TOTAL TM	J	10730.

#### File Description ? SHEAR OUTLINES OF ELBOW

Output to line-printer <Y or N> ? N

( 39, 3) . WO .W04 ELBOW .M03

SHEAR SHEETMETAL OUTLINES FOR ELBOW WITH SHEAR AT SHEETMETAL SHOP OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART \* 7

\* U.S.S. CAPE COD

- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
- \* ROUGH CUT CHEEK RADIUS ON SHEAR
- \* SHEAR IS SMALL 3 FT. SHEAR

FITTER BEGINS AT SMALLSHEAR

1	POSITION 4X8 SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH.4 STEPS		
	A1 B0 G1 A6 PO P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS		
	Al BO G1 Ml X6 IO AO	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR		
	Al BO G1 Al BO P6 AO	1.00	90.
4	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING LINES ON SHEETMETAL PROCESS F 28		
	Al BO G1 Ml X6 IO AO	25.00	2520.
5	PLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
6	MOUE CART FROM SMALLSHEAR TO WORKTABLE		
-	Al B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU

3680.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? SHEAR ELBOW RADIUS LINES

### Output to Line-Printer (Y or N> ? N

(39,3)

FIT W04 ELBOW .M04

SHEAR SHEETMETAL FOR ELBOW RADIUS LINES WITH UNI-SHEAR AT SHEETMETAL SHOP

PER ELBOW OFG: 4 09-MAR-33

NASSCO SHEETMETAL PART \* 7

- \* U.S.S. CAPE COD
- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
- \* FINISH SHEAR CHEEK RADIUS WITH UNI-SHEAR

FITTER BEGINS AT WORKTABLE

1	PLACE	SHEETMETAL	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	3 STEPS						

	WIIN 3 SIEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
-2	MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE		
_	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
7	OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 4		
J	Al PO G1 M6 X17310 A0	4.00	7240.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 1 CUT USING		
•			
	SNIPS AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (32)	1.00	1640.
5			
J	FASTEN ( FLATEN )SHEETMETAL CORNERS ON SHEETMETAL AT		
	WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 32 ( 4 5		
	67)		
	Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (32)	1.00	1320.
_		1.00	1320.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	Al BO G1 Al BO P3 AO	1.00	60.
-		1.00	
1	MOVE CART FROM WORKTABLE TO LAPOUT MACHINE		
	Al BO G1 A54 BO P1 AO	1.00	570.
	20 01 1101 20 11 110		370.

TOTAL TMU 12910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FORM ELBOW LAP

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W04 ELBOW .MO5

FORM SHEETMETAL FOR ELBOW LAP WITH

LAPOUT MACHINE (ROTARY MACHINE) AT SHEETMETAL SHOP

OFG: 4 09-MAR-83 PER ELBOW

NASSCO SHEETMETAL PART \* 7

\* U.S.S. CAFE COD

\* WORK ORDER 3070-339 \* SKETCH 737

\* 20 GUAGE GALV. SHEETMETAL

\* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD

\* LAPOUT 1 END, 2 CHEEKS, 1 THROAT & 1 HEEL

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4

	DILID I I					
	Al	B0 G1	A6 B0	P3 A0	4.00	440.
2	PUSH LAPOUT-SWITCH AT LAPOUT	PROCESS	F 4			
	A1	B0 G1	Ml Xl6	IO AO	4.00	760.
3	REPLACE SHEETMETAL FROM LAPC	OUT TO CA	ART AT LA	APOUT WITH		
	4 STEPS					
	A1	B0 G1	A6 B0	P3 A0	1.00	110.
4	MOUE CART FROM LAPOUT TO PIT	TSBURGH				
	A1	B0 G1	A6 B0	P1 A0	1.00	90.

TOTAL TMU 1400.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,990

File Description ? FORM PITTSBURGH LOCK ON ELBOW utput to line-printer <Y or N> ? N

(39, 3)

FIT .WO4 ELBOW .MO6

FORM SHEETMETAL FOR ELBOW LOCK WITH PITTSBURGH AT SHEETMETAL SHOP PER ELBOW OFG: 4 O9-MAR-83

NASSCO SHEETMETAL FART \* 7

- \* U .S.S. CAPE COD
- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
- \* FORM PITTSBURGH LOCK ON 1 SIDE OF MACH
- \* FORM EDGE ON OTHER SIDE OF MACH

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
2	PUSH PITTSBURGH-BUTTON AND FORM PITTSBURGH PROCESS F 2	_,,,	
	Al BO G1 Ml X32 IO AO	2.00	300.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH F 3		
	A1 B0 G1 M1 X0 I3 A0	3.00	100.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4 STEPS		200.
	A6 B0 G1 M1 X0 I3 A0	1.00	110.
5	PLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS	2.00	,
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM PITTSBURGH TO WORKTABLE		
Ŭ	Al B0 G1 A54 B3 P1 A0	1.00	600 •

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

1810.

File Description ? FORM ELBOW RADIUS THROAT & HEEL

Output to line-printer <Y or N> ? N

(39,3)

FIT .W04 ELBOW .MO7

FORM RADIUS ON ELBOW THROAT & HEEL WITH ROLLER AT SHEETMETAL SHOP PER ELBOW OFG: 4 09-MAR-83

NASSCO SHEETMETAL PART \* 7

- \* U.S.S. CAFE COD
- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
- \* PLACE SCRAP METAL IN LOCK.
- \* SO ROLLER WILL NOT CLOSE GAP

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
_	Al BO G1 A6 BO P3 A0	1.00	110.
۷	MOVE SCRAP-SHEETMETAL FROM SCRAPBIN TO WORKTABLE  A54 B3 G1 A54 B3 P1 A0	1.00	1160.
3	PLACE SHEETMETAL ( SCRAP STRIPS 1 FROM WORKTABLE TO SHEETMETAL ( THROAT & HEEL ) PITTSBURGH AT WORKTABLE F		
	Al BO G1 Al BO P3 AO	4.00	240.
4	FASTEN SHEETMETAL ( SCRAP ) TO SHEETMETAL ( THROAT & HEEL ) AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al BO G1 (A1 BO PO F3 )A1 BO Pl AO (8)	1.00	360.
5	PLACE SHEETMETAL AND HAMMER FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM WORKTABLE TO ROLLER		
	Al B0 G1 A54 B0 F1 A0	1.00	570.
'/ ]	PLACE SHEETMETAL FROM. CART AT ROLLER TO ROLLER WITH 4		
	STEPS Al B0 G1 A6 B0 F3 A0	1.00	110.

Type D, EM, CT, EX, T, W <Or H for help> ?

2660.

File Description ? FORM EDGE ON ELBOW CHEEKS
Output to line-printer <Y or N> ? N

(39, 3)

FIT .W04 ELBOW .M08

FORM SHEETMETAL FOR ELBOW CHEEKS WITH ROLLER AT SHEETMETAL SHOP PER ELBOW OFG: 4 10-MAR-83

NASSCO SHEETMETAL FART \* 7

- \* U.S.S. CAFE COD
- \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2'RAD
- \* KINK CORNER ON SHEETMETAL WITH VISEGRIPS
- \* DONE FOR EASE OF OPERATION
- \* ROLLER IS EDGE ROLLER

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
2	LOOSEN SHEETMETAL [SCRAP] FROM SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al BO G1 (A1 BO PO L3 )A1 BO P1 A0 (8)	1.00	360 .
3	GRIP AND TWIST SHEETMETAL [CHEEKS] AT WORKTABLE 1 TWIST USING VISEGRIPS AND ASIDE F 4		
	Al BO G1 Al BO P3 Cl Al BO P1 AO	4.00	360 .
4	MOVE SHEETMETAL FROM WORKTABLE TO EDGER		
_	Al BO G1 A67 BO P1 A0	1.00	700.
5	POSITION SHEETMETAL TO EDGER WITH 4 STEPS  Al BO G1 A6 BO P6 A0	1.00	140.
6	OPERATE EDGER-SWITCH AT EDGER PROCESS F 4	1.00	140.
U	Al BO G1 M6 X42 IO AO	4.00	2000.
7	MOVE SHEETMETAL FROM EDGER TO WORKTABLE	2.00	
	Al BO G1 A67 B3 P1 A0	1.00	730.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

4400.

(39,3)

FIT W04 ELBOW .M09

ASSEMBLE SHEETMETAL PIECES FOR ELBOW WITH HAMMER AT SHEETMETAL SHOP

PER ELBOW OFG: 4 10-MAR-83

NASSCO SHEETMETAL PART \* 7

- \* U.S.S. CAFE COD \* WORK ORDER 3070-339
- \* SKETCH 737
- \* 20 GAUGE GALV. SHEETMETAL
- \* DIMEN:7 1/2'X6'X90DEGREESX7 1/2' RAD
- \* ASSEMBLE 2 CHEEKS, 1 THROAT & 1 HEEL \* SECURE ASSEMBLY WITH PITTSBURGH LOCK

FITTER BEGINS AT WORKTABLE

1	FASTEN (	FLATT	EN ) CO	RNEF	RS ON	SHEE	TMET.	AL A	r W	ORI	KTAI	3LE	2
	STRIKES	USING	HAMMER	ΑT	WORKT	ABLE	AND	ASID	E E	PF	16	(	4
	567)												

	Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16)	1.00	1160.
2	MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE	1 00	1000
3	A% B0 G1 A96 B3 P1 A0 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT	1.00	1970.
	WORKTABLE F 2  Al B0 G1 Al B0 P6 A0	2 1 00	180.
4	FASTEN BARCLAMP TO ELBOW AT WORKTABLE 3 WRIST-CRANKS USING 'HAND F 2	2 1 00	100.
	Al BO G1 Al BO P1 F6 AO BO PO AO	2.00	200 .
5	PLACE SETTINGTOOL FROM WORKTAELE TO SHEETMETAL AT		
	WORKTABLE PF 12 ( 4 5 6 )	1 00	F 0 0
6	A1 B0 G1 (A1 B0 P3 (A0 (12) FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTAELE 1 STRIKE	1.00	500.
O	USING HAMMER AND ASIDE PF 12 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P0 F3 )Al B0 P1 A0 (12)	1.00	520.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKES		
	USING HAMMER AND ASIDE Pi 24 ( 4 5 6 7 )	1.00	1000.
8	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (24) LOOSEN BARCLAMP FROM SHEETMETAL ATWORKTABLE 3	1.00	1000.
O	WRIST-CRANKS USING HAND PF 2 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 L6 )AO BO PO AO (2)	1.00	180.
9	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 2 STRIKES		
	USING HAMMER AND ASIDE PF 99 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (99)	1.00	6970.
10	GRIP SEALANT TO SHEETMETAL FIFFICULT AT WORKTABLE USING	1.00	0570.
	CAULKINGGUN AND ASIDE PF 12 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 F3 Cl )A1 B0 P1 A0 (12)	1.00	640 .
11	INSPECT SHEETMETAL AT WORKTAELE 9 POINTS	1 00	100
	AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.

TOTAL TMU 13420.

## SHEEFFMETAL SHAPE #7

## 15"x 15" x 90° ELBOW WIFH 15" RADIUS

FAB	75890	45 MIN.
MARK out	22000	13 MIN.
TOTAL TMU.	97890	59 MIN.

Please input file <ELBOW.M40 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39,3)

FIT .W11

.W11 ELBOW .M40 MARK OUT CHEEKS FOR ELBOW WITH AWL AT SHEETMETAL SHOP

OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

\* HULL 414

- \* V6-2491
- \* 18 GAUGE GALV. SHEETMETAL \* 15'x15' RECT. ELBOW WITH 15' RADIUS
- \* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

XDAT	TEOSROTO: WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P6 A0	2.00	280.
2	PLACE WEIGHTS FROM WORKTABLE TO TEMPLATE ON SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4		
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE	4.00	440.
	5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4] 5RG4} Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (6)	3 7 1.00	1120.
4	POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 8		
5	Al B0 G1 Al B0 P6 A0 FASTEN CPUNCH TO TEMPLATE AT OWKTABLE 1 STRIKE USING	8.00	720.
	HAHMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 4		
7	A1 B0 G1 A6 B0 P3 A0 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO	4.00	440.
	WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220.
8 7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7S )	2.00	220.
•	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6)	1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
10	ASIDE PF 60 ( 4 5 6 7 )  Al B0 X061 (A1 B0 P1 R3 )A1 B0 P1 A0 (60)  MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	3040.
	ASIDE PF 52 ( 4 5 6 7 )  Al B0 G1 (Al B0 Pl R3 )Al B0 Pl A0 (52)	1.00	2640.

TOTAL TMU 10380,

( 3	9, 3)		
FIT	.W11 ELBOW .M41	T CIIOD	
	MARK OUT HEEL AND THROAT FOR ELBOW WITH AWL AT SHEETMETA PER ELBOW OFG: 4 14-AP		
	NASSCO SHEETMETAL SHAPE 7		
	* HULL 414 * DRAWING 501-062		
	* V2-62001		
	* V6-2491		
	* 18 GAUGE GALV. SHEETMETAL * 15'X15' RECT. ELBOW WITH 15' RADIUS		
	* MARK OUT THROAT&HEEL WITHOUT TEMPLATE		
	FITTER BEGINS AT WORKTABLE		
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING		
	STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	1400
2	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1400.
	USING AWL AT WORKTABLE AN ASIDE PF 8 ( 4 5 6 7 )		
2	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	440.
3	WORKTABLE WITH 3 STEPS F 4		
	Al B0 G1 A6 B0 P6 A0	4.00	560.
4	MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6		
	7 )		
E	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	760.
5	AT WORKTABLE WITH 3 STEPS F 8		
_	Al BO G1 A6 BO P6 A0	8.00	1120.
6	MARK LINES FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 R6 )A1 BO P1 AO (8)	1.00	680.
7	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND HOLD PF 4 ( 4 5 6 7 )		
	Al BO G1 (Al BO P1 R16 )AO BO PO AO (4)	1.00	740.
8	HOLD+MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS		
	USING BW7EDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) A0 B0 GO (A1 B0 P1 R6 )A1 B0 P1 A0 (8)	1.00	660.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	000.
	WORKTABLE 1 DIGIT USING BLACKP AT WORKTABLE AND HOLD PF 34 (4567)		
	Al B0 G1 (A1 B0 F1 R3 )A0 B0 P0 A0 (34)	1.00	1720.
10	HOLD+MARK IDENTIFICATION INFORMATION ON SHEETMETA AT		
	WORKTABLE E 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )		
	A0 B0 GO (A1 B0 P1 R3 )A1 B0 P1 A0 (52)	1.00	2620.
11	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
12	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
	Al B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 11620.

Please input file <ELBOW.M42 > ?

File Description ? SHEAR SHEETMETAL FOR ELBOW

Output to line-Printer <Y or N> ? N

(3913)

FIT • W11 ELBOW .M42

SHEAR SHEETMETAL FOR ELBOW WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

\* HULL 414

\* DRAWING 501-062

\* V2-62001

\* V6-2491

\* 18 GAUGE GALV. SHEETMETAL

\* 15'X15' RECT. ELBOW WITH 15' RADIUS

\* SHEAR SPACER STRIPS FOR PITTSBURGH LOCKS

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	Al BO G1 M1 X6 IO AO	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH		
	3 STEPS F 20	00 00	0000
	Al B0 G1 A6 B0 P6 A0	20.00	2800.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 20		
	Al BO G1 M1 X6 IO AO	20.00	1800.
5	REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 20 STEPS		
	Al B0 G1 A32 B0 P3 A0	1.00	370.
6	MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU

6160.

Type D, EM, CT, EW, EX, L, LB, LS, M, T, W (or H fop help> ?

### Please input file (ELBOW.M > ?

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

1

( 39, FIT	3) .W11		E	LBOW .	M43			
SH	EAR RADIUS	ON CHEEKS	FOR	ELBOW	WITH	UNI-SHEAR	AT	SHEETMETAL
SHOP								
PER ELI	BOW					OFG:	4	14-AFR-83
]	NASSCO SHEE'	TMETAL SH	APE 7					
*	HULL 414							
*	DRAWING 50	1-062						
*	V2-62008							
*	V6-2491							
*	18 GAUGE G	SALV. SHEE	TMETA	L				
*	15'X15' RE	CT. ELBOW	WITH	15' R	ADIUS			
			_ ^ _					

* BEND EDGE CORNE	RS UP 90DEGREES	FOR EDGER	
FITTER BEGINS AT	WORKTABLE		
PLACE SHEETMETAL2	FROM CART AT WOF	RKTABLE TO	WORKTARLE

	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 8		
	Al BO G1 M6 X17310 AO	8.00	14480.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 F3 C3 )A1 B0 F1 A0 (8)	1.00	600.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER A-T WORKTABLE AND ASIDE PF 8 ( 4 5		
	67)		
	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (8)	1.00	600.
6	GRIP AND TWIST EDGE CORNERS ON SHEETMETAL [CHEEKS] AT		
	WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND		
	ASIDE PF 4 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 F3 C1 )A1 B0 P1 A0 (4)	1.00	240.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 F3 A0	2.00	220 •
8	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT		
	A1 E0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 18900.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <ELBOW.M44 > ?

File Description ? FORM LAP ENDS ON SHEETMETAL FOR ELBOW

Output to line-printer <Y or N> ? N

( 391 3)

FIT ● W11

ELBOW .M44

FORM LAP ENDS ON SHEETMETAL FOR ELBOW WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER ELBOW NASSCO SHEETMETAL SHAPE 7

\* HULL 414

- \* DRAWING 501-062
- \* V2-62001
- \* V6-2491
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' RECT. ELBOW WITH 90DEGREE RADIUS

FITTER BEGINS AT LAPOUT

Τ	PLACE S	SHEETMETAL	F'ROM	CART	A'I'	LAPOU	JT TO	LAP(	JUT	MT.I.H	4
	STEPS	F 4									
				A.	LВ	0 G1	Аб	В0	Р3	A0	
2	PUSH LA	APOUT-SWITC	H PRO	CESS	F 4						

3 PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 3 STEPS A6 B0 G1 Ml X0 I3 A0 1.00 110. 4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH

Al BO G1 Ml X16 IO AO

4 STEPS F 4 4.00 440. Al B0 G1 A6 B0 P3 A0 5 MOVE CART WITH SHEETMETAL FROM LAPOUT TO EDGER Al BO G1 Al6 HO Pl AO

> TOTAL TMU 1940.

1.00

4.00 440.

760.

190.

4.00

OFG: 4 14-APR-83

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <ELBOW.M45> ?

File Description ? FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

( 39, 3) FIT .W11

ELBOW .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR ELBOW WITH

EDGER (FLANGER) MACHINE AT SHEETMETAL SHOP

PER ELBOW

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-62001
- \* V6-2491
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' RECT. ELBOW WITH 15' RADIUS
- \* USE PREVIOUSLY TURNED UP EDGE TO --
- S START METAL IN MACHINE

FITTER BEGINS AT EDGER

1	POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH EDGER-SWITCH PROCESS F 2		
	Al BO G1 Ml X42 IO AO	2.00	900.
3	POSITION SHEETMETAL FROM EDGER TO EDGER WITH 3 STEPS F		
	2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
4	PUSH EDGER-SWITCH PROCESS F 2		
_	Al BO G1 M1 X42 IO AO	2.00	900.
5	PUSH AND GUIDE SHEETMETAL THROUGH EDGER WITH 3 STEPS		
	A6 B0 G1 Ml X0 I3 A0	1.00	1101
6	REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 <b>A</b> 0	2.00	220.
7	MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH		
	Al BO G1 Al6 BO F1 AO	1.00	190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

2880.

TOTAL TMU

OFG: 4 14-APR-83

Please input file <ELBOW.M46 > ?

File Description ? FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW Output to line-printer (Y or N> ? N

(39, 3) FIT .W11 ELBOW .M46

FORM PITTSBURGH LOCK ON THROAT AND HEEL FOR ELBOW WITH PITTSBURGH AT SHEETMETAL SHOP

PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-62001
- \* V6-2491
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' RECT. ELBOW WITH 15' RADIUS

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	Al BO G1 Ml X32 IO AO	2.00	700.
3	PLACE SHEETMETAL FROM PITTSBURGH TO PITTSBURGH WITH 2 STEPS F 2		
	Al BO G1 A3 BO P3 A0	2.00	160.
4	PUSH PITTSBURGH-BUTTON PROCESS F 2		
_	Al BO G1 Ml X32 IO AO	2.00	700.
5	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3 STEPS F 4	_,,,	, , ,
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
6	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS F 2		
	AT BO G1 A6 BO P3 A0	2.00	220.
7	MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE	2.00	220.
,	Al B0 G1 A54 B3 F1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M,T, W <or H for help> ?

32920

3040.

TOTAL TMU

Please input file <ELBOW.M47 > ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW Output to line-Printer <Y or N> ? N

( 3	9, 3)				
FIT	.W11			ELBOW .M47	
	DOCTTION	CDVCEBC	TINT	סדיייפפווספט ז.הפעפ	

POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW WITH HAMMER AT SHEETMETAL SHOP
PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

- **\*** HULL 414
- **\*** DRAWING 501-062
- **\*** V2-62001
- **\*** V6-2491
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' RECT. ELBOW WITH 15' RADIUS
- \* PROTECT PITTSBURGH LOCKS WITH SPACERS--
- \* WHILE ROLLING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	rri •
2	POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO		
	SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE WITH 3		
	STEPS F 4		
	Al B0 G1 A6 B0 P6 A0	4.00	560.
3	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE		
	USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (8)	1.00	360.
4	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 1 STEP F 12		
	Al BO G1 A3 BO P3 A0	12.00	960.
5	MOVE SHEETMETAL FROM WORKTABLE TO ROLLER		, , , ,
J	NOVE SHEETHEITE INON WORKITEDER TO ROBBER		

Al B0 G1 A54 B0 P1 A0 1.00

TOTAL TMU 2670.

570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <ELBOW.M48 > ?

File Description ? FORM RADIUS ON THROAT AND HEEL FOR ELBOW

Output to line-printer (Y or N> ? N

(39, 3)

FIT • W11 ELBOW .M48

FORM RADIUS ON THROAT AND HEEL FOR ELBOW WITH ROLL FORMER (ROLLER) MACHINE AT SHEETMETAL SHOP PER ELBOW OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-62001
- \* V6-2491
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' RECT. ELBOW WITH 15' RADIUS
- \* CHECK RADIUS ON THROAT & HEEL WITH --
- t. RADIUS ON CHEEK

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH  3 STEPS		
	Al BO G1 A6 HO P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3		
	WRIST-TURNS USING HAND F 6		
_	Al BO G1 Al BO P1 F6 AO BO PO AO	6.00	600.
3	PUSH ROLLER-BUTTON PROCESS F 8		
4	Al BO G1 Ml X96 IO AO	8.00	7920.
4	POSITION SHEETMETAL [THROAT & HEEL] FROM WORKTABLE TO		
	SHEETMETAL [CHEEK] AT ROLLER WITH 3 STEPS F 8	0 00	F C O O
Е	A54 B3 G1 A6 B0 P6 A0	8.00	5600.
5	MOVE SHEETMETAL FROM ROLLER TO WORKTABLE  Al B0 G1 A54 B3 F1 A0	1.00	600.
	AI BU GI AS4 BS FI AU	1.00	000.

TOTAL TMU 14830.

Type D, EM, CT, EW, EX, L, LD, LS, M, W <or H for help> ?

60.

640 .

600.

220 .

540 .

500 •

### Please input file LBOW.M49 > ?

File Description ? ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW Output to line-printer <Y or N> ? N (39, 3).W11 ELBOW .M49 TTT ASSEMBLE CHEEKS, THROAT, AND HEEL FOR ELBOW WITH HAMMER AT SHEETMETAL SHOP OFG: 4 14-APR-83 PER ELBOW NASSCO SHEETMETAL SHAPE 7 \* HULL 414 \* DRAWING 501-062 \* V2-62001 \* VS-2491 \* 18 GAUGE GALV. SHEETMETAL \* 15'X15' RECT. ELBOW WITH 15' RADIUS \* REMOVE SPACERS FROM PITTSBURGH LOCK FITTER BEGINS AT WORKTABLE 1 PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE 1.00 Al BO G1 Al BO P3 AO 2 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 8 B0 G1 A3 B0 P3 A0 Al 8.00 3 LOOSEN SHEETMETAL FROM SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 Al B0 G1 (A1 B0 P0 L6 )A11 B0 P1 A0 (8) 1.00 4 MOVE BARCLAMP FROM TOOLROOM TO WORKTABLE A96 B0 G1 A96 B3 P1 A0 1.00 1970. 5 POSITION SHEETMETAL [CHEEK] TO SHEETMETAL [THROAT : HEEL] AT WORKTABLE WITH 1 STEP F 2 AL BO G1 A3 B0 P6 2.00 6 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6 Al B0 G1 Al B0 P6 A0 6.00 7 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND PF 6 ( 4 5 6 7 ) Al B0 Gl (A1 B0 P1 F6 )A0 B0 PO A0 (6) 1.00 8 POSITION SETTINGTOOL FROM WORKTARLE TO SHEETMETAL AT

	MODETT	ABLE F 40		
	WORKIF		40.00	2622
		Al BO G1 Al BO P6 AO	40.00	3600.
9	FASTEN	SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES		
	USING	HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )		
		Al B0 G1 (A1 B0 PO F6 )A1 B0 F1 A0 (40)	1.00	2840.
10	FASTEN	SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES		
	USING	HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
		Al BO G1. (A1 BO PO F6 )A1 BO Pl AO (16)	1.00	1160.
11	FASTEN	SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES		
	USING	HAMMER AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )		
		A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (40)	1.00	13240.
12	INSPECT	SHEETMETAL AT WORKTABLE 9 POINTS		
		AO BO GO AO HO PO T10 AO BO PO AO	1.00	

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

75,890

# SHEEF METAL SHAPE

## 15"X 40" X 90° ELBOW WITH VANE FORN

FAB	76480	46 MIN.
MARK OUT	34320	21 MIN
WELD	215015	130 MIN.
TotAL TM.U.	325 815	195 MIN

36242

### NASSCO WALYSIS OF ERECTION UNITS

PARAMETER ENDING 03-18-83

CUN	ERECTION	HULL	DESCRIPTION	ENG STRUC SCHED	TURE ACTUAL	LUFTING - SCHED	ACTUAL	CHASE FLAG	START DATE	DRAWING INFO MATION SUB ASSY NSTLN
D	AS, 1000	414	PURCHASED PREFILTERS (UNDER C/ (SEE TEQUILA) SEE N-K PRIOR TO INSTALL	NREC	NREC	NREC	NŘEC	Z	11/02/82	414-501-777 11/25/82
O	V2 797	414	FILTERS (ABSLT.WITH DUMMY) (PU 501-913 C/G (SEE TEQUILA) SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/08/82 11/25/82	414-501-777- 11/25/82 11/25/82
D	V2 1002	414	ABSOLUTE FLTR.(21-6)501-007(PU VENT 3RD PLATF.FR.90-100(SPARE SEE 4-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	z ;	11/15/82 12/09/82	4 14-501-777- 1 2/09/82 1 2/09/82
D	V2 1006	414	PRE FILTER(Z1 6)501 007 (PURCH VENT 3RD PLATF.FR.90.100 (SPAR SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC	NREC	Z	11/15/82 12/09/82	414-501-777- 12/09/82 12/09/82
9	V2 1008	414	PRE FILTER (ZI 16) 501-011 (PU VENT. 2ND. PLATE. FR. 90-100 ( SEE M-K PRIOR TO INSTALL	NREC	NREC	NREC .	ŇREC		00/00/00 01/03/83	414-501-777- 01/03/83 01/03/83

PREPARED 09/05/82 01:28 AGE

UNITS BEHIND SCHED

### Please input file <ELBOW.M20 > ?

File Description ? MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS Output to line-printer <Y or N> ? N

Ouc	out to line-printer (1 or N): N	
( 39	9, 3) • W09 MARK OUT CHEEKS FOR RECTANGULAR ELBOW WITH VANE TURNS WITH AWL	AT
PER	TIMETAL SHOP ELBOW OFG: 4 11-APR-83  NASSCO SHEETMETAL SHAPE *7  * HULL 414  * DRAWING 501-062  * V2-1098  * V6-7598  * 11 GAUGE GALV. SHEETMETAL  * 15'X40' ELBOW WITH VANE TURNS  * MARK OUT CHEEKS WITH TEMPLATE FITTER BEGINS AT WORKTABLE  POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	
2	WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P6 A0 2.00  POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT	280.
	WORKTABLE WITH 3 STEPS F 6  Al B0 G1 A6 B0 P6 A0 6.00  3 MARK LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7	840.
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	1120.
5	Al B0 G1 Al B0 P6 A0 57.00 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	5130.
б	Al B0 G1 Al B0 P6 A0 57.00 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 ( 4 5 6 7 )	5130.
7	FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 57 ( 4 5 6 7 )	2320.
8	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (57) 1.00 REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS F 6	2320.
9	Al B0 G1 A6 B0 P3 A0 6.00 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	660.
10	Al BO G1 A6 BO P3 AO 2.00  HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	220.
11	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00  HARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 48 ( 4 5 6 7 )	1120.
	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (48) 1.00	2440.

12 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (52) 1.00 2640.

TOTAL THU 24220.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

### Please input file <ELBOW.M21 > ?

File Description ? MARK OUT THROAT AND HEEL FOR ELBOW

Output to line-printer <Y or N> ? N .W09 ELBOW MARK OUT THROAT AND HEEL FOR ELBOW WITH AWL AT SHEETMETAL SHOP OFG: 4 11-APR-83 PER ELBOW NASSCO SHEETMETAL SHAPE \*7 \* HULL 414 \* DRAWING 501-062 \* V2-1098 \* V6-7598 \* 11 GAUGE GALV. SHEETMETAL \* 15'X40' ELBOW WITH VANE TURNS \* MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE 1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4 Al B0 G1 A1 B0 P1 M32 Al B0 P1 A0 4.00 1520. 2 MARK DIMENSIONS FROM STEEL-TAPE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 16(4567) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16) 1.00 840. 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8 Al B0 G1 A6 B0 P6 A0 8.00 1120. 4 MARK LINES FROM STRAIGHTEDGE TOSHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 (A1 B0 P1 R16 )A1 B0 P1 A0 Al BO G1 (8) 1.00 1480. 5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) (A1 B0 P1 R16 )A1 B0 P1 A0 A1 B0 G1 (4) 1.00 760. 6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (34) 1.00 1740. 7 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (52) 1.00 2640. TOTAL TMU 10100.

File Description ? MARK OUT TURN VANES FOR RECTANGULAR ELBOW		
Output to line-printer <y n="" or=""> ? N</y>		
( 39, 3) FIT .W09 ELBOW MARK OUT TURN VANES FOR RECTANGULAR ELBOW WITH AWL AT SH	EETMETA	L
SHOP PER ELBOW  NASSCO SHEETMETAL SHAPE 7  * HULL 414  * DRAWING 501-062  * V2-1098  * V6-7598  * 11 GAUGE GALV. SHEETMETAL  * 15'X40' ELBOW WITH VANE TURNS  * MARK OUT WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	R-83	
1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4 ( 1 2 3 4 5 6 7 )		
(A1 B0 G1 A1 B0 P1 A6 )M32A1 B0 P1 A0 (4)  2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING AWL AT WORKTABLE WITH 3 STEPS AND ASIDE PF 12 ( 4 5 6 7 )	1.00	740.
Al B0 G1 (A1 B0 P1 A6 )R3 A1 B0 P1 A0 (12) 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	1.00	1030.
Al B0 G1 Al B0 P6 A0 4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE WITH 2 STEPS AND ASIDE P F 6 ( 4 5 6 7 )	6.00	540.
Al BO G1 (A1 BO P1 A3 )R16A1 BO P1 AO (6)  5 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 4 (4567)	1.00	500 •
Al B0 G1 (A1 B0 P1 A6 )R16A1 B0 P1 A0 (4) 6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE WITH 3 STEPS AND ASIDE PF 46 ( 4 5 6 7 )	1.00	520.
Al B0 G1 (Al B0 Pl A6 )R3 Al B0 Pl A0 (46) 7 MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )	1.00	3750.
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 8 PEACE SHEET METAL2 FROM WORKTABLE TO CART AT WORKTABLE	1.00	2640.
A1 B0 G1 A6 B0 P3 A0	2.00	220.
* MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR  A1 RO G1 A67 RO D1 A0	1 00	700

A1 B0 G1 A67 B0 P1 A0

TOTAL TMU 10640.

1.00

700.

TOTAL TMU 6620.

Please input file <ELBOW.M23 > ?

File Description ? SHEAR SHEETMETAL FOR REC. ELBOW WITH VANE TURNS Output to line-printer <Y or N> ? N

( 39, 3)
FIT .W10 ELBOW

SHEAR SHEETMETAL FOR RECTANGÜLAR ELBOW WITH 'JANE TURNS WITH LARGE 14FT. SHEAR AT SHEETMETAL SHOP PER ELBOW OFG: 4 12-APR-83

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7598
- \* 11 GAUGE GALV. SHEETMETAL
- \* 15'X40' ELBOW WITH 'JANE TURNS
- \* 2 FITTERS REQUIRED:

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 4		
	Al BO G1 A6 BO P6 A0	4.00	560.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS		
	Al BO G1 Ml X3 IO AO	1.00	60.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 32		
	Al BO G1 Al BO P6 AO	32.00	2880.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 32		
	Al BO G1 M1 X3 10 AO	32.00	1920.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT		
	14FT.SHEAR WITH 8 STEPS F 3		
	Al BO G1 Al6 BO P3 AO	3.00	630.
6	MOVE CART WITH SHEETMETAL2 FROM 14FT.SHEAR TO NIBBLER		
•	Al BO G1 A54 BO P1 A0	1.00	570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T. W <or H for help> ?

Please input file <ELBOW.M24 > ?

File Description ? SHEAR RADIUS ON CHEEKS FOR ELBOW

Output to line-printer <Y or N> ? N

(39, 3) FIT .W10

NIBBLER AT SHEETMETAL SHOP OFG: 4 12-APR-83 PER ELBOW

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7592
- \* 11 GAUGE GALV. SHEETMETAL
- \* 15'X40' ELBOW WITH VANE TURNS
- \* 2 FITTERS REQUIRED

FITTER BEGINS AT NIBBLER

1	POSITION SHEETMETAL FROM CART AT NIBBLER TO NIBBLER WITH 3 STEPS F 2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH NIBBLER-BUTTON PROCESS F 2		
	Al BO G1 Ml X81 IO AO	2.00	1680.
	3 POSITION SHEETMETAL FROM NIBBLER TO NIBBLER WITH 3		
	STEPS F 14		
	Al BO G1 A6 BO P6 A0	14.00	1960.
4	PUSH NIBBLER-BUTTON PROCESS F 14		
	AL BO G1 Ml X81 IO AO	14.00	11760.
5	REPLACE SHEETMETAL FROM NIBBLER TO CART AT NIBBLER WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
6	MOUE CART WITH SHEETMETAL FROM NIBBLER TO ROLLER		
	Al BO G1 A24 BO P1 A0	1.00	270.
	TOTAL	TMU	16060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <ELBOW.M25 > ?

File Description ? FORM RADIUS ON THROAT & HEEL FOR ELBOW Output to line-Printer <Y or N> ? N

( 39, 3) FIT .W09 ELBOW

FORM RADIUS ON THROAT AND HEEL FOR RECTANGULAR ELBOW WITH ROLL FORMER (ROLLER) AT SHEETMETAL SHOP
PER ELBOW OFG: 4 11-APR-83

NASSCO SHEETMETAL SHAPE 7

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7598
- \* 11 GAUGE GALV. SHEETMETAL
- \* 15'X40' REC. ELBOW WITH VANE TURNS
- \* CHECK THROAT AND HEEL RADIUS WITH--
- x --CHEEK RADIUS

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 4		
	Al B0 G1 A6 B0 P3 A0	4.00	440.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS USING HAND AT ROLLER WITH 2 STEPS F 48		
	Al BO G1 Al BO P1 F6 AO BO PO AO	48.00	4800.
3	PUSH ROLLER-BUTTON PROCESS F 48		
	Al B0 G1 M1 X96 I0 A0	48.00	47520.
4	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
5	MOUE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE [WELD AREA]		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L,LD, LS, M, T, W <or H for help> ?

76,480

53800.

TOTAL TMU

Please input file <ELBOW.M26 > ?

File Description ? WELD RECTANGULAR ELBOW

Output to line-Printer <Y or N> ? N

(39,101)-

WELD • W01 ELBOW .M26

WELD RECTANGULAR ELBOW WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

OFG: 4 20-JUL-83

PER RECTANGULAR ELBOW
WELDING NASSCO SHEETMETAL SHAPE 7

\* 11 GAUGE GALV. SHEETMETAL

- \* 15X40 RECTANGULAR ELBOW X60'L WITH-
- \* --TURN VANES
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

	FILLER BEGINS AI WORKIABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
•	Al BO G1 A6 BO P3 A0	1.00	110.
	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE Al B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	3,0.
	WELDMACHINES TO ON AT WELDMACHINES	1 00	60
6	Al BO G1 M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
O	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8		
	A3 B3 G1 Al B0 P6 A0	8.00	1120.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8 Al B0 G1 M1 X10 IO A0	8.00	1040.
8	WELDOR FASTEN WELDROD TO STINGER-BUTTON1 AT WELDTABLE 1	0.00	1040.
	WRIST-TURN USING HAND F 56		
9	Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0 WELDOR FASTEN WELDROD TO STINGER-BUTTON1 AT WELDTABLE 1	56.00	3920.
9	WRIST-TURN USING HAND F 55		
	A1 B0 G1 A1 E0 P1 F3 A0 B0 P0 A0	55.00	3850.
10	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 56  Al BO G1 Ml X0 IO Al	56.00	2240.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 55	30.00	2240.
	Al BO G1 Ml XO IO Al	55.00	2200.
12	WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL		
	ASSEMBLY AT WELDTABLE F 90  Al BO G1 Al BO P6 AO	90.00	8100.
	Al B0 G1 Al B0 P6 A0  13 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL		
	ASSEMBLY AT WELDTABLE F 36	26 00	2040
1 4	Al BO G1 Al BO P6 AO	36.00	3240.
14	OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F		

	01		
1 5	Al B0 G1 M6 X173I0 A0 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 90	84.00	152040.
	Al BO G1 Ml XO IO Al	90.00	ª <del>3</del> 600.
16	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 21  Al B0 G1 Ml X0 I0 Al	21.00	840.
17	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE F 40		
18	Al B0 G1 Al B0 P0 L16 Al B0 P1 A0 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 20	40.00	8400.
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF $8\ 0\ (\ 4\ 5\ 6\ 7\ )$		
19	Al B0 G1 (A1 B0 P1 C24 )A1 B0 P1 A0 (80) REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT	1.00	20840.
	WELDTABLE WITH 4 STEPS F 2		
20	Al B0 G1 A6 B0 P3 A0 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE	2.00	220.
	Al B0 G1 Al31B0 P1 A0	1.00	1340,
	TOTAL TM	ſŪ	215010.

File Description ? WELD RECTANGULAR ELBOW
Output to line-minter <Y or N> ?

### VOLUME TWO

WORK MANAGEMENT MANUAL
SHEETMETAL SHOP VENTILATION COMPONENTS
NASSCO

### VOLUME TWO

WORK MANAGEMENT MANUAL
SHEETMETAL SHOP VENTILATION COMPONENTS
NASSCO

SHEETMETAL SHAPE #

## 8X8 X 90° ELBOW WITH VANE TRACK

FAB	/30780 <u>-</u>	78 MIN
MARK OUT	41910	25 MIN
WELD	34680	ZO MIN
TOTAL TMU:	207370	124. MIN

### File Description ? MARK OUT CHEEKS FOR VANE TRACK ELBOW

Output to line-Printer <Y or N> ? N

(	Output to line-Printer <y n="" or=""> ? N</y>		
( 3 FIT SHOP	MARK OUT SHEETMETAL FOR JANE TRACK ELBOW WITH AWL AT SHE	ETMETAL	
PER	VANE TRACK ELBOW OFG: 4 1 1-M NASSCO SHEETMETAL PART * 8  * HULL 418  * DRAWIGN 501-292  * U2-92008  * V6-1497  * 22 GAUGE GALV. SHEETMETAL  * DIMENSIONS: 8'X8'X90 DEGREES  * 8'X8' ELBOW WITH VANE TRACK  * MARK GUT ELBOW CHEEKS WITH TEMPLATE FITTER BEGINS AT WORKTABLE  POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	AR-83	
	WORKTABLE WITH 3 STEPS  Al B0 G1 A6 B0 P6 A0  PLACE 1 WEIGHT FROM WORKTABLE TO SHEETMETAL AT	1.00	140,
3	WORKTABLE WITH 3 STEPS  Al B0 G1 A6 B0 P3 A0  MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	1.00	110
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 )	1.00	1480
5	Al BO G1 (A1 BO P6 )AO (16) FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 16 ( 4 5 6 7 )	1.00	1140.
6	Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (16) REPLACE 1 WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	480.
7	Al BO G1 A6 BO P3 AO REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS	1.00	110
8	Al BO G1 A6 BO P3 A D POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )	1.00	110.
9	Al BO G1 (A1 BO P6 )AO (4) MARK SHEETMETAL FROM STRAIGHTEDGE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	300.
10	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )	1.00	760.
11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (19)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	990
	ASIDE PF 27 (4567)	1.00	1390.

Al BO G1 (A1 BO P1 R3 ) A1 BO P1 A0 (27) 1.00 1390.

12 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7

Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (34) 1.00 1740.

TOTAL TMU 8950.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

# File Description ? MARK OUT THROAT & HEEL FOR VANE TRACK ELBOW Cutsut to line-printer (Y or N> ? N

	9, 3) .W04 VNELBO VNELBO	SHEETMETA	L
PER	VANE TRACK ELBOW  NASSCO SHEETMETAL PART *8  * HULL 418  * DRAWING 501-292  * V2-92008  * V6-1497  * 22 GAUGE GALV. SHEETMETAL  * DIMENSIONS: 8'X8'X90 DEGREES  * ELBOW WITH VANE TRACK  * MARK OUT THROAT & HEEL  FITTER BEGINS AT WORKTABLE	1-MAR-83	
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 1 2 3 4 5 6 )	7	
2	(A1 B0 G1 A1 B0 P1 M32 )A1 B0 P1 A0 MARK LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AW AND ASIDE PF 18 ( 4 5 6 7 )		2180.
	A1 BO G1 (A1 BO F1 R3 )A1 BO P1 A0 ( 3 POSITION STTRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL A WORKTABLE AND ASIDE PF 5 ( 4 5 6 )		940.
4	Al BO G1 (A1 BO P6 )AO MARK LIMES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTAB 5 DIGITS USING AWL AND ASIDE PF 5 ( 4 5 6 7 )		370.
5	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 3		940.
6	Al B0 G1 Al B0 P6 A0 MARK LINES FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6	8.00 7	720.
7	A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USI: REDPEN AT WORKTABLE AND ASIDE PF 19 ( 4 5 6 7 )		680.
8	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 ( MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 (4)	•	990.
9	67) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 ( MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGI	40) 1.00	2040.
	USING BLACKPEN AND ASIDE PF 38 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (	(38) 1.00	1940.
ŀ	. TOTA	ב דאט	10800 .

### File Description ? MARK ACCESS COVER & BACK UP PLATE

## $\label{eq:potential} \text{Output to line-printer} < Y \text{ or } N > \text{? } N$

•			
( 39 FIT	, 3) .W04 VNELBC		
	MARK OUT SHEETMETAL FOR ACCESS COVER & BACK UP PLATE WIT	H AWL A	
	TMETAL SHOP  VANE ELBOW OFG: 4 11-MA	D-33	
PER	NASSCO SHEETMETAL PART * 8	1 33	
	* HULL 418		
	* DRAWING 501-292		
	* V2-91006		
	* V6-1497 * 10 GAUGE GALV. SHEETMETAL FOR PLATE		
	* MARK OUT USING COVER PLATE TEMPLATE		
	FITTER BEGINS AT WORKTABLE		
1	MOVE 10 GAUGE SHEETMETAL-SCRAP FROM SCRAPBIN TO		
_	WORKTABLE		
	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
2	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 3 STEPS Al B0 G1 A6 B0 P1 A0	1.00	140.
3	MARK OUTLINE FROM ACCESS TEMPLATE TO SHEETMETAL AT	1.00	110.
	WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF		
	4 ( 4 5 6 7 )	1 00	0.40
	41 RO G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	240.
	WORKTABLE AND ASIDE PF 13 ( 4 5 6 )		
	A1 HO G1 (A1 B0 P6 )A0 (13)	1.00	930.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING		
	HAMMER AND ASIDE PF 13 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F3 )A1 BO P1 A0 (13)	1.00	560 .
6	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO		
	WORKTABLE		
7	Al B0 G1 Al B0 P3 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	60.
,	STEEL-TAPE AT WORKTABLE AND ASIDE P1 6 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (6)	1.00	2030.
8	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AT WORKTABLE $\overline{AND}$ ASIDE PF 6 ( 4 5 6 7 ) Al B0 Gl (Al B0 Pl R3 $\overline{)A1}$ B0 Pl A0 (6)	1.00	340.
9	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	340.
	REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )		
1.0	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	540.
10	WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 13 ( 4 5		
	67)		
	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (13)	1.00	690.
11	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE Pi 34 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 <b>P1</b> A0 (34)	1.00	1740.
12	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS	1 00	110
	A1 B0 G1 A6 B0 <sup>P3</sup> A0	1.00	110.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

### File Description ? MARK OUT TURN VANES & END PIECE

Output to line-Printer <Y or N>?N

( 3 FIT	9, 3) .W04 VNELBO MARK OUT SHEETMETAL FOR TURN VANES & END FIECE WIT	.н үү ү	г	
	TMETAL SHOP	17-MAR-		
	* V6-1497  * 22 GAUGE GALV. SHEETMETAL  * LAYOUT PIECES WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE			
1	MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7			2440
2	AL BO G1 (A1 BO P1 M32 )A1 BO P1 ACMARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 18 ( 4 5 6 7 )	) (10) .	1.00	3440.
3	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL		1.00	940.
4	WORKTABLE AND ASIDE PF 12 ( 4 5 6 )  Al BO G1 (A1 BO P6 )AO  MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKT  5 DIGITS USING AWL. AT WORKTABLE AND ASIDE PF 12 (	CABLE	1.00	360.
_	67) Al B0 G1(Al B0 P1 R16 )A1 B0 P1 A0		1.00	2200.
5	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al B0 G1 (Al B0 P1 M32 )Al B0 P1 A		1.00	720.
5	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 13 ( 4 5 6 7 )	) ( <b>Z</b> .)	1.00	, 20 +
7	Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT U		1.00	<u> </u>
3	REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 E1 A0  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 D1  USING BLACKPEN AT WORKTABLE AND ASIDE PF 56 (4 5	GIT	1.00	840.
	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0		1.00	2840.
9	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTAB WITH 4 STEPS			448
10	Al B0 G1 A6 B0 P3 A0 MOVE CART WITH SHEETMETAL FROM WORKTABLE WITH 12 STO SMALLSHEAR [SHEAR IS REALLY THE 14 FT. SHEAR]	STEPS	1,00	110.
	A24 B0 G1 A67 B0 P1 A0	)	1.00	9.30.
	TO	OTAL TMU		13570.

TOTAL TMU

2590.

Please input file WMELBO ?



File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

(39, 3)

. W05 VNELBO.M05 FIT

SHEAR 10 GAUGE SHEETMETAL FOR ACCESS COVER WITH 14 FT. SHEAR AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL SHAPE #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 10 GAUGE GALV. SHEETMETAL
- \* BACK UP PLATES & COVER PLATE
- \* 3'X8'X90 DEGREE ELBOW WITH VANE TRACK

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR [14 FT. SHEAR] TO SMALLSHEAR C14 FT. SHEAR] WITH 4 STEPS		
Al BO G1 A6 BO P6 A0  PTIME 3 S AT 14 FT SHEAR FOR CUTTING SHEETMETAL	1.00	140.
	1.00	83.
3 POSITION SHEETMETAL FROM SMALLSHEAR C14 FT. SHEAR] TO SMALLSHEAR [14 FT. SHEAR] F 11		
Al B0 G1 A1 B0 P6 A0 4. PTIME 33 S [11 CUTS] AT 14 FT SHEAR FOR CUTTING SHEETMETAL	11.00	990.
5 REPLACE SHEETMETAL FROM SMALLSHEAR [14 FT. SHEAR] TO	1.00	917.
CART AT SMALLSHEAR [14 FT. SHEAR] WITH 4 STEPS Al B0 G1 A6 B0 P3 A0 6 MOVE CART FROM SMALLSHEAR C14 FT. SHEAR] TO SMALLSHEAR	1.00	110 .
WITH 18 STEPS  Al B0 G1 A32 B0 P1 A0	1.00	350.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <VNELBO.MO6> ?

File Description ? SHEAR 90 DEGREE ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W05 VNELBO :

SHEAR SHEETMETAL FOR 90 DEGREE TURN VANE ELBOW WITH SMALL SHEAR AT SHEETMETAL SHOP

PER VANE-ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* SHEAR 22 GA & 10 GA GALV. ON 8FT. SHEAF:

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	
	Al BO G1 A6 BO P6 A0 2.00	280 •
2	PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 2	
	Al BO G1 Ml X5 IO AO 2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 28	
	Al BO G1 Al BO P6 AO 28.00	2520.
	4 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS F 30	
	Al BO G1 Ml X6 IO AO 30.00	2700.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 3 STEPS F 2	
	Al BO G1 A16 BO P3 A0 2.00	420.
6	MOVE CART FROM SMALLSHEAR TO WORKTABLE	
	Al BO G1 A67 B3 P1 A0 1.00	730.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

9,420

6830.

TOTAL TMU

#### Please input file <VNELBO.MO7> ?

File Description ? SHEAR VANE ELBOW CHEER'S WITH UNI-SHEAR

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .W05 VNELB0

SHEAR SHEETMETAL FOR VANE ELBOW CHEEKS WITH UNI-SHEAR AT

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE

SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART # 8

\* HULL 418

\* DRAWING 501-292

\* V2-92003

\* V6-1947

\* SHEAR 22 GAUGE ELBOW CHEEKS

\* SHEAR WITH UNI-SHEAR

\* CUT PITTSBURGH CORNERS WITH SNIPS

FITTER BEGINS AT WORKTABLE

_	WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
2	MOVE UNI-SHEAR FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	POSITION CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE FF 4 ( 4 5 6 )		
4	A1 B0 G1 (A1 B0 P6 )A0 (4) FASTEN CHISEL TO SHEETMETALA T WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 4 ( 4 5 6 7 )_	1.00	300.
	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4)	1.00	200
5	OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F		
	Al BO G1 Mb X173IO AO	10.00	18100.
6	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P3 C3 )A1 BO P1 A0 (20)	1.00	1440.
7	FASTEN ( FLATTEN ) SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 28 ( 4 5 6 7 )		
	Al BO G1 (A1 BO PO F6 )A1 BO P1 A0 (28)	1.00	2000.
8	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
0	WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
9	MOUE CART FROM WORKTABLE TO BARFOLDER Al PO G1 A67 B0 P1 A0	1.00	700,

TOTAL TMU 24930.

Please input file <VNELEO.MO8> ?

File Description ? BEND HEMMED EDGE ON VANE ELBOW

Output to line-printer

( 39, 3)

FIT ● W05

VNELBO

BEND HEMMED EDGE FOR VANE TRACK ELBOW WITH BAR FOLDER AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \*22 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 8'X8'X90 DEGREES
- \* ELBOW WITH VANE TRACK
- \* BEND EDGE OVER 130 DEGREES
- \* BENDED EDGE IS FOR HEMMED EDGE

FITTER BEGINS AT BARFOLDER

1	l place sheetmetal2 from cart at barfolder to e	BARFOLDER		
	Al BO G1 A3 BO	P3 A0	6.00	480.
2	2 OPERATE BARFOLDER-LEVER PROCESS F 6			
	Al BO G1 M6 X16	IO AO	6.00	1440.
3	REPLACE SHEETMETAL2 FROM BARFOLDER TO CART AT	Γ BARFOLDER		
	F 6			
	Al BO G1 Al BO	P3 A0	6.00	360.
4	4 MOUE CART FROM BARFOLDER TO LAPOUT			
	Al B0 G1 A24 B0	P1 A0	1.00	270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,900

2550.

TOTAL TMU

Please input file <VNELBO ?



File Description ? LAP OUT VANE ELBOW

Output to line-printer

**(** 39, **3)** 

FIT ● W05 VNELBO.M09

FORM (LAPOUT) SHEETMETAL FOR 90 DEGREE VANETRACK ELBOW WITH LAPOUT AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL FART # 8

- \* HULL 413
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* LAPOUT ONE END

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CAR'	T AT LA	APOUT TO	) LAP(	OUT W	IITH 4		
	STEPS							
			G1 A6	в0	Р3	A0	1.00	110.
2	PUSH LAPOUT-SWITCH PROCESS	5 F 4						
	I	Al BO	G1 Ml	X16	ΙO	A0	4.00	760 .
3	REPLACE SHEETMETAL FROM I	LAPOUT	TO CART	' AT	LAPOU	JT WITH		
	4 STEPS							
	P	Al BO	G1 A6	в0	Р3	A0	1.00	110.
4	MOVE CART FROM LAPOUT TO E							
	I	Al BO	G1 A6	В0	Ρ1	A0	1.00	90.

TOTAL TMU 1070.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,970

Please input file (VNELBO.M10> ?

File Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW Output to line-Printer (Y or N> ? N

(39,3) FIT .W05

VNELBO

FOR SHEETMETAL LOCK FOR ELBOW WITH VANE TRACK WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

- \* HULL 413
- \*I DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* FORM PITTSBURGH LOCK & EDGE
- \* PITTSBURGH IS LOCKFORMER
- FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH		
	WITH 4 STEPS Al B0 G1 A6 B0 P3 A 0	1.00	110.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
2	Al BO G1 M1 X32 IO AO PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 3	2.00	700.
3	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH F 3  A1 B0 G1 M1 X0 T3 A0	3.00	180.
4	PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 4	3.00	100.
	STEPS -:		
_	A6 B0 G1 M1 X0 I3 A0	1100	110.
5	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT PITTSBURGH WITH 4 STEPS		
	Al BO G1 A6 BO P3 AO	1.00	110.
4	MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO LEAFBRAKE		
	Al B0 G1 A32 B0 P1 A0	1100	350.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,530

1560.

TOTAL TMU

Please input file < VNELBO

File Description ? BEND END PIECE & FLATTEN HEMMED EDGE ON VANE TURNS File Description ?

#### Output to line-printer <Y or N> ? N

**(39,** 3)

FIT . WO5

VNELBO.M11

BEND END PIECE AND FLATTEN HEMMED EDGE ON VANE TURNS WITH LEAF BRAKE AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 8'X8'X90 DEGREES
- \* ELBOW WITH VANE TURNS
- \* COMPLETE BENDS OF END PIECE ON FAN BRAKE

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS F 9

Al BO G1 A6 BO P6 AO 9.00 1260.

2 OPERATE LEAFBRAKE-LEVER PROCESS F 9

Al BO G1 M6 X16 IO AO 9.00 2 1 6 0.

3 REPLACE SHEETMETAL2 FROM LEAFBRAKE TO CART AT LEAFBRAKE

Al BO G1 Al BO P3 AO 9.00 540.

4 MOVE CART FROM LEAFBRAKE TO ( TABLE AT 8FT. )
HYDROPRESS

HYDROPRESS
Al B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 4530

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?

44,060

# Please input file <VNELBO. ?

File Description ? BEND TURN VANES FOR ELBOW WITH VANE TRACK

### Output to line-printer <Y or N> ? N

(39, 3)

FIT.WO5 VNELBO.M12

BEND TURN VANES FOR ELBOW WITH VANE TRACK WITH 8 FT. HYDRAULIC PRESS BRAKE AT SHEETMETAL SHOP OFG: 4 17-MAR-83 PER VANE ELBOW

NASSCO SHEETMETAL FART #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 8'X8'X90DEGREES
- \* ELBOW WITH TURN VANE
- \* USE LAYOUT ON 'JANE TRACK FOR BEND RADIUS
- \* HYDROPRESS IS 8FT HYDRAULIC PRESS BRAKE

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT HYDROPRESS TO TABLE AT HYDROPRESS WITH 3 STEPS		
	A96 B0 G1 A6 B0 P3 A0	1.00	1060.
2	PLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO HYDROPRESS F 6		
	Al BO G1 Al BO P3 AO	6.00	360.
3	OPERATE HYDROPRESS-FOOTPEDAL PROCESS F 43		
	Al BO G1 M6 X5 IO AO	48.00	6720.
4	REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT HYDROPRESS WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
5	REPLACE SHEETMETAL FROM TABLE AT HYDROPRESS TO CART AT HYDROPRESS WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
6	MOVE CART FROM TABLE AT HYDROPRESS TO PANBRAKE		
	Al BO G1 A81 BO Pl AO	1.00	840.

Type D, EW, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

53,260

9200.

TOTAL TMU

Please input file <VNELBO.

File Description ? BEND THROAT, HEEL & END PIECE FOR VANE ELBOW Output to line-printer (Y or N> ? N

(39, 3)

FIT .W05 VNELBO.M13

BEND SHEETMETAL THROAT, HEEL & END PIECE FOR VANE TRACK ELBOW WITH FAN BRAKE AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART #8

\* HULL 418

- \* DRAWING 501-292
- \* V2-92008
- \* 116-1947
- \* COMPLETE BEND IN END PIECE
- \* BEND THROAT & HEEL FOR 8X8X90DEGREES
- \* ELBOW WITH VANE TURN

FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 3		
	Al BO G1 A6 BO P6 A0	3.00	420.
2	FASTEN SHEETMETAL ( BOLT ) TO PANBRAKE ( FINGER ) AT		
	PANBRAKE 5 WRIST-STROKES USING 15,16WRENCH AT PANBRAKE		
	AND ASIDE PF 2 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P3 F16 )A1 BO P1 AO (2)1	1.00	440.
3	FASTEN SHEETMETAL ( NUT ) TO PANBRAKE ( TABLE ) AT		
_	PANBRAKE 3 WRIST-STROKES USING HAND		
	Al BO G1 A1 BO Pl F10 AO BO PO AO	1.00	140.
4	OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 3	_,,,	
-	A1 B0 G1 M6 X95 IO A0	3.00	3120.
5	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 6	3.00	3120.
J	Al BO G1 Al BO F6 AO	6.00	540.
6	OPERATE PANBRAKE-LEVER AT PANBRAKE PROCESS F 6	0.00	310.
U	Al BO G1 M6 X96 IO AO	6.00	6240.
7	PLACE SHEETMETAL2 FROM PANBRAKE TO CART AT PANBRAKE	0.00	0210.
,	WITH 4 STEPS F 3		
	Al BO G1 A6 BO P3 A0	3.00	330.
Ω	MOUE CART FROM PANBRAKE TO WELDOUT	3.00	330.
0	A1 B0 G1 A54 B3 P1 A0	1.00	600.
	AI DO GI ADA DO PI AO	1.00	000.

Type D, EM, CT, EW, EX, L, LD, LS, T, W (or H for help> ?

65,090

11830.

TOTAL TMU

File Description ? TACK WELD VANE TRACK ASSEMBLY FOR ELBOW

Output to line-Printer <Y or N> ? N

(39, 3)

VNELBO .W05 FIT

TACK WELD VANE TRACK ASSEMBLY FOR ELBOW WITH TACK WELDER AT

SHEETMETAL SHOP

OFG: 4 17-MAR-83 PER VANE ELBOW

NASSCO SHEETMETAL FART #3

- \* HULL 418
- \* DRAWING 501-292
- V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS: 8'X8'X90DEGREES
- \* ELBOW WITH VANE TRACK
- \* TACK WELD 6 VANE TURNS TO VANE TRACK

FITTER BEGINS AT WELDOUT

1	PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS		
3	A1 B0 G1 A6 B0 P3 A0 POSITION SHEETMETAL2 FROM WELDOUT TO SHEETMETAL2 AT	1.00	1-10.
شد	WELDOUT F 7	П 00	620
3	A1 B0 G1 A1 B0 P6 A0 OPERATE TACKWELDER AT WELDOUT PROCESS F 36	7.00	630.
	A1 B0 G1 M6 X3 IO A0	36.00	3960.
4	REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
5	MOVE CART FROM WELDOUT TO SPOTWELDER		

A1 B0 G1 A81 B0 P1 A0

TOTAL TMU 5650.

1.00

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

70,740

840.

#### %Invalid command.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

'please input file <VNELBO,M15> ?

File Description ? SPOT WELD ACCESS COVER TO BACK UP PLATE

Output to line-printer <Y or N> ? N

(39,3) FIT .W05 V N E L B O

WELD ACCESS COVER TO BACK UP PLATE FOR VANE TRACK ELBOW WITH SPOT WELDER AT SHEETMETAL SHOP OFG: 4 17-MAR-83 PER VANE ELBOW

NASSCO SHEETMETAL FART #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* SPOT WELD ACCESS COVER BACK UP PIECES
- \* TO ELBOW CHEEK
- \* FOR \*'X8'X90DEGREE ELBOW WITH VANE TRACK
- \* FOR OTHER WELDIING SEE MWELD

FITTER BEGINS AT SPOTWELDER

1. POSITION SHEETMETAL2 FROM CART AT SPOTWELDER TO SPOTWELDER F 4

				A1	В0	G1	A1	В0	Р6	A0	4.00	360.
2	OPERATE S	SPOTWEL	DER-FOOTE	EDAL	PRO	CESS	F 1	.9				
				A1	в0	G1	Мб	Х6	10	A0	19.00	2660.
3	REPLACE S	SHEETME	TAL2 FROM	I SPO	TWEL	DER	TO C	'ART	AT			
	SPOTWELI	DER WIT	H 4 STEPS	5								
				A1	в0	G1	Аб	в0	Р3	A0	1.00	11.0
4	MOVE CART	FROM	SPOTWELD	ER T	CO M	ORKT	'ABLE	]				

A1 B0 G1 A54 B3 P1 A0 1.00

TOTAL TMU

Type D,DE,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

74,470

600.

3730.

Please input file <VNELBO.Ml7> ?

'File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39,1)

WELD .W01

VNELBO.M17

WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH PER VANE TRACK ELBOW OFG: 4 22-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8'X90 DEGREES WITH VANE TRACK--
- \* --WITH 6 TURN VANES
- \* TACK WELD VANE TRACK WITH 1' TACK
- \* WELDING DONE IN WELD BOOTH AREA
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	2 2 0 .
2	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE	1 00	1 2 5 0
3	A1 B0 G1 A131B3 P1 A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370.
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220.
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 Ml X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES		
	TO ON' AT WELDMACHINES		
_	A1 B0 G1 M1 X0 IO A1	1.00	40.
Ь	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHIN 1		
	WRIST-TURN USING HAND A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	1.00	70.
7	-WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
,	WELDMACHINES TO ON AT WELDMACHINES		
	A1 B0 G1 M3 X0 I0 A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	00.
	TO SHEETMETAL ASSEMBLY AT WELDTABLE		
	A3 B3 G1 Al B0 P6 A0	1.00	140.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS		
1.0	A1 B0 G1 M1 X10 IO A0	1.00	130.
Τ0	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL		
	ASSEMBLY AT WELDTABLE F 52	F0 00	4600
11	Al B0 G1 Al B0 P6 A0 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 16	52.00	4680.
т т	A1 B0 G1 M1 X0 I0 A1	16.00	640.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	10.00	010.
	MELDON TOSTITON MELDGON FROM MELDIADDE TO SHEETMETAD		

	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 52		
	A1 B0 G1 Al B6 P6 A0	52.00	7800.
	13 OPERATE WELD STINGER-BUTTON1 PROCESS F 17		
	A1 B0 G1 M6 X31 IO A0	17.00	15130.
	14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 16		
	A1 B0 G1 Ml X0 IO Al	16.00	640.
_	15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	1 4 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (14)	1.00	1720.
	16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
	WELDTABLE WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
	17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE		
	A1 B0 G1 Al31B0 F1 A0	1.00	1340.
	TOTAL	TMU	34680.

File Description ? WELD ELBOW WITH VANE TRACK
Output to line-printer <Y or N> ?

File Description ? ASSEMBLE CHEEKS, THROAT & HEEL FOR VANE TRACK ELBOW File Description ?

Output to line-Printer <Y or N> ? N

(39,3)

FIT .W04 VNELBO

ASSEMBLE SHEETMETAL FOR CHEEKS, THROAT & HEEL IN VANE ELBOW WITH HAMMER AT SHEETMETAL SHOP

PER 'JANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1947
- \* ASSEMBLE ELBOW & INSTALL VANE TRACK
- \* 22 GAUGE GALV. SHEETMETAL
- \* DIMEN: '8'X8'X90DEGREES WITH VANE TRACK

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P3 A0 POSITION SHEETMETAL (CHEEK #1) FROM WORKTABLE TO	2.00	220.
۷	SHEETMETAL (THROAT&HEEL ) AT WORKTABLE WITH 3 STEPS	1 00	
3	A1 B0 G1 A6 B0 P6 A0 FASTEN SHEETMETAL (PITTS. LOCK ) ON SHEETMETAL AT	1.00	140.
	WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12  A1 B0 G1 A1 B0 P0 F3 A0 B0 P0 A0	12.00	720.
4	FASTEN SHEETMETAL (PITTS LOCK ) ON SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 (4 5 6 7 )	12.00	720.
	A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (13)	1.00	4330.
5	POSITION SHEETMETAL (VANE TRACK ) FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
6	A1 B0 G1 A1 B0 P6 A0 POSITION SHEETMETAL (CHEEK #2) FROM WORKTABLE TO	1.00	90.
Ŭ	SHEETMETAL AT WORKTABLE WITH 2 STEPS		
7	11101211 0112211121112 (11110 2001) 011 0112211121112 111	1.00	110.
	WORKTABLE 1 STRIKE USING HAMMER AND HOLD F 12  A1 B0 G1 A1 B0 P0 F3 A0 B0 P0 A0	12.00	720. (
8	FASTEN SHEETMETAL (PITTS LOCK ) ON SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AND ASIDE PF 13 ( 4 5 6 7 )	12.00	720. (
	A1 B0 G1 (A1 B0 P0 F32 A1 B0 P1 A0 (13)	1.00	4330.

TOTAL TMU 10660.

# Quatrut to line-printer <Y or N> ? N

(39,3)

VNELBO

V N E L B O TACK WELD VANE TRACK ON ELBOW WITH TACK WELDER AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 17-MAR-83

NASSCO SHEETMETAL PART # 8

- \* HULL 418
- \* DRAWING 1-292
- \* V2-92008
- \* V6-1947
- \* 22 GAUGE GALV. SHEETMETAL
- \* DIMENSIONS:8'X8'X90 DEGREES
- \* ELBOW WITH VANE TRACK
- \* TACK WELD 'JANE TRACK TO INSIDE OF ELBOW
- \* OTHER WELDING SEE MWELD

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETAL2 FROM WORKTABLE TO WELDOUT		
	A1 B0 G10 A54 B3 F1 A0	1.00	600.
2	PLACE SHEETMETAL2 FROM FITTER TO WELDOUT WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
3	OPERATE TACKWELDER ON SHEETMETAL PROCESS F 1b		
	A1 B0 G1 M6 X3 IO A0	16.00	1760.
4	MOVE SHEETMETAL2 FROM WELDOUT TO WORKTABLE		
	Al BO G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 3070.

Type D,EM,GT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

(39, 3)

# File Description ? DRILL & TAF--MAKE GASKET FOR ACCESS PLATE

Output to line-printer <Y or N> ? N

F	ΙΤ	.W05 VENLBO.M19		
		TAP AND DRILL SHEETMETAL FOR MAKING GASKET FOR ACCESS PI	LATE WITH	[
		NG MOTOR AT SHEETMETAL SHOP		
Р	ER	VANE ELBOW OFG: 4 18-MA	1R-83	
		NASSCO SHEETMETAL SHAPE #8 * HULL 418		
		* DRAWING 501-292		
		* V2-92008		
		* V6-1947		
		* 10 GAUGE GALV. ACCESS PLATE		
		* FOR 8'X8'X90 DEGREE 'JANE TRACK ELBOW		
		FITTER BEGINS AT WORKTABLE		
	1	POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW		
	_	ASSEMBLY] AT WORKTABLE WITH 2 STEPS		
		Al BO Gl A3 BO PS A0	1.00	110.
	2	GRIF SHEETMETAL [ACCESS PLATE & ASSEMBLY] AT WORKTABLE		
		USING CCLAMPS AND HOLD		
	_	A1 B0 G1 A1 B0 P3 C1 A0 B0 P0 A0	1.00	270.
	3	MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE	1 00	1070
· ( 📆 )	1	A96 B0 G1 A96 B3 P1 A0 FASTEN 7,32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	1.00	1970.
	T	WRIST-TURNS USING CHUCKKEY AND ASIDE		
		A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140 .
	5	PLACE DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
		WORKTABLE		
	_	A1 B0 G1 A1 B0 P3 A0	1.00	á0.
	6	OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F		
		13 A1 B0 G1 M6 x6 I0 A0	13.00	1820.
	7	[UN] GRIP SHEETMETAL [ACGESS PLATE & ASSEMBLY AT	13.00	1020.
	•	WORKTABLE USING CCLAMPS AND ASIDE		
		A1 B0 G1 Al B0 P3 Cl Al B0 Pi A0	1.00	90.
	8	FASTEN 1 / 4TAP FROM WORKTABLE TO TAPINGMOTOR AT		
		WORKTABLE 3 WRIST-STROKES USING CHUKKEY AND ASIDE	1 00	100
	۵	A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0 OPERATE DRILLMOTOR [TAPING MOTOR] ON SHEETMETAL AT	1.00	180.
	פ	WORKTABLE PROCESS F 13		
			13.00	1820.
	10	FASTEN S.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3		
		WRIST-STROKES USING CHUCKKEY AND ASIDE		
		A1 B0 G1 A1 B0 P3 F10 A1 B0 P1 A0	1.00	180.
	11	OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS		
		13 Al BO Gl M6 X6 IO AO	13.00	1820.
	12	MOVE SHEETMETAL [ACCESS PLATE] AND BLACKPEN [INK PEN]	13.00	1020.
		FROM WORKTABLE TO GASKET-CUTTING-TABLE		
		A1 B0 G1 A152B0 P1 A0	1.00	1550.
	13	MOVE UTILITY KNIFE, 3 / B HOLE PUNCH AND FROM		

	TOOLROOM TO GASKET-GUTTING-TAELE		
14	A96 B0 G1 A96 B0 P1 A0 PLACE SHEETMETAL2 [ACCESS COVER] FROM FITTER AT	1.00	1940.
	GASKET-GUTTING-TABLE TO GASKET-CUTTING-TABLE  Al B0 G1 Al B0 P3 A0	1.00	60.
15	PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE	1.00	
16	A1 B0 G1 A1 B0 P3 A0 PLACE SHEETMETAL2 [ACCESS COVER] FROM	1.00	60.
10	GASKET-GUTTING-TABLE TO RUBBER AT GASKET-GUTTING-TABLE A1 B0 G1 A1 B0 P3 A0	1.00	60.
17	CUT RUBBER TRACING SHEETMETAL2 [ACCESS COVER] AT GASKET-GUTTING-TABLE 1 GUT USING UTILITY-KNIFE AND ASIDE PF 4 ( 4 5 6 7 )		
18	A96 B0 G1 (A96 B0 P3 C1 )A1 B0 P1 A0 (4) MARK HOLES ON RUBBER AT GASKET-GUTTING-TABLE 1 DIGIT	1.00	4990.
	USING BLACKPEN [INKPEN] AND ASIDE PF 13 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 H0 P1 A0 (13)	1.00	<b>490.</b>
19	POSITION 3 / 8 HOLE PUNCH FROM GASKET-GUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE AND ASIDE PF 13 ( 4 5 6 7 )		
20	A1 B0 G1 (A1 B0 P6 A0 ) FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 13 STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE PF13 (4567)	1.00	930.
21	A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (13) MOVE HOLE PUNCH , UTILITY-KNIFE , AND MALLET FROM	1.00	4330,
	GASKET-CUTTING-TABLE TO TOOLROOM A1 B0 G1 A95 B0 P1 A0	1.00	990.
	MOVE GLUE FROM TOOLROOM TO WORKTABLE  Al B0 G1 A96 B3 P1 A0	1.00	1020.
23	MOVE RUBBER , SHEETMETAL2 [ACCESS COVER] FROM GASKET-CUTTING-TABLE TO WORKTABLE	1 00	2000
24	A152B3 A152B3 P1 A0 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1	1.00	3090.
٥٦	ARM-STROKE USING FILE AND ASIDE PF 25 ( 4 5 6 7 ) Al BO G1 (Al BO Pl C1 )Al BO F1 AO (25)	1.00	790.
	GRIP GLUE TO RUBBER AT WORKTABLE USING HAND  Al B0 G1 A1 B0 P1 C1 A0 B0 P0 A0  WIFE GLUE TO RUBBER AT WORKTABLE 1 SQ.FT. USING BRUSH	1.00	50.
۷.	AND ASIDE  A96 B0 G1 A96 B3 P1 S10-A1 B0 P1 A0	1.00	2090.

TOTAL TMU 30900.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# Please input file <VNELBO.M20> ?

File Description ? ASSEMBLE END PIECE TO ELBOW WITH VANE TRACK
Output to line-Printer <Y or N> ? N

(3 FIT	39, 3) .W09 ASSEMBLE END PIECE FOR VANE TRACK ELBOW WITH RIVET GUN-AT	
	ETMETAL SHOP  VANE ELBOW  NASSCO SHEETMETAL SHAPE #8  * HULL 418  * DRAWING 501-292	
	* V2-92008  * V6-1947  * 22 GAUGE GALV. SHEETMETAL  * 8'X8'X90 DEGREE ELBOW WITH VANE TRACK  * FASTEN END PIECE TO ELBOW WITH RIVETS  FITTER BEGINS AT WORKTABLE	
1	PLACE SHEETMETAL END PIECE] FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE	
2	A1 B0 G1 A1 B0 P3 A0 1.00 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL [END PIECE] AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 )	0 60.
3	- · · · · · · · · · · · · · · · · · · ·	0 180.
4		1240.
	A1 B0 G1 A1 B0 P3 A0 1.0  FASTEN NUT [DRILLBIT] TO DRILLMOTOR AT WORKTABLE 3  WRIST-TURNS USING WRENCH [CHUCKKEY] AT WORKTABLE AND AS IDE	0 60.
6	A1 B0 G1 Al B0 P3 F6 A1 B0 P1 A0 1.0 OPERATE DRILLMOTOR ON SHEETMETAL AT WORKTABLE PROCESS F 24	0 140.
7	A1 B0 G1 M6 X6 IO A0 24.0 PLACE RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 24	0 3360
8	A1 B0 G1 A1 B0 P3 A0 24.00 OPERATE RIVETGUN ON SHEETMETAL AT WORKTABLE PROCESS F 24	0 1440.
9	A1 B0 G1 MS X3 I 0 A0 24.0 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO	0 2640.
	SHEETMETAL [ELBOW] AT WORKTABLE WITH 2 STEPS A1 B0 G1 A3 B0 P3 A0 1.0	0 30.
	MOVE BOLTS FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0 1.0	0 1970.
11	POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT WORKTABLE A1 B0 G1 A1 B0 F6 A0 1.0	0 90.
· 12	FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE	<i>J</i>

A1 B0 G1 A1 B0 P3 F24 A1 B0 P1 A0 1.00 320.

13 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS AO BO GO AO 30 PO T10 AO BO PO AO 1.00 1.00

TOTAL TMU 116801

Type D,EM,CT,EW,EX,L,LD,LS,T,W <or H for help> ?

130780

SHEET METAL SHAPE 8

# 22" X 12" X 90° ELBOW WITH VANE TEACK

FAB	290810	174.
MARK OUT	87,880	53.
WELD	45000	26
TOTAL TMU.	425690	255 MIN.

File Description ? MARK OUT CHEEKS FOR 22'X12' VANE TRACK. ELBOW output to line-Printer <Y or N> ? N

(39,3) FIT .W07 VNELBO.M30  MARK OUT SHEETMETAL FOR VANE TRACK ELBOW CHEEKS WITH AWL SHEETMETAL SHOP PER VANE ELBOW OFG: 4 23-MA  NASSCO SHEETMETAL SHAPE 88  * HULL 418  * DRAWING 501-292  * V2-92007  * V6-1914  * 18 GAUGE GALV. SHEETMETAL  * 22'X12' ELBOW WITH VANE TRACK  * MARK OUT CHEEKS WITH TEMPLATE FITTER BEGINS AT' WORKTABLE		
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 A1 B0 G1 A3 B0 P6 A0	2.00	220.
2 POSITION 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2		
A1 B0 G1 A6 B0 P6 A0 3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 16 ( 4 5 6 7 )	2.00	280.
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) 4 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE	1.00	2920.
F 24 Al B0 G1 Al B0 P6 A0 5 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING	24.00	2160.
HAMMER AND ASIDE PF 24 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (24) 6 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	1000.
WORKTABLE F 6 A1 B0 G1 A1 B0 P6 A0	6.00	540.
7 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 6 ( 4 5 6 7 )	0.00	310.
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 8 POSITION ACCESS TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	1120.
Al- WORKTABLE FOR ONE CHEEK ONLY Al B0 G1 A1 B0 P6 A0 9 POSITION CPUNCH FROM WORKTABLE 1-a TEMPLATE AT WORKTABLE	1.00	90.
F 4 Al B0 G1 A1 B0 P6 A0	4.00	360.
10 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE. PF 4 ( 4 5 6 7 )	1 00	000
A1 B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (4) 11 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	200.
A1 B0 G1 A1 B0 P6 A0  12 MARK LINES ON SHEETMETAL FROM STRAIGHT EDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE	4.00	360.
PF 4( 4 5 6 7)  Al BO G1 (Al BO P1 R16 )Al BO P1 AO (4)  13 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	760.

REDPEN AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )  Al B0 G1 (Al B0 P1 R3 )A1 B0 P1 A0 (24)  14 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1240.
WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF ( 4 5 6 7		
8 9 )  A1 B0 G1 (A1 B0 P1 R3 A0 B0 )P0 A0 (1)	1.00	70.
15 MOVE BLACKPEN FROM FITTER AT WORKTABLE TO SHEETMETAL AT WORKTABLE		
A1 B0 G1 A1 B0 P1 A0	1.00	40.
16 HARK IDENTIFICATTION INFORMATION SHEETMETAL AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)	1.00	2640.
17 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2		
Al BO G1 A6 BO P3 A0	2.00	220.
TOTAL TM	IU	14220.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? MARK OUT 1/2 THROAT&HEEL FOR 22X12 V.T. ELBOW Output to line-printer <Y or N> ? N

FIT .W07 VNELBO.M31  MARK OUT SHEETMETAL FOR VANE TRACK ELBOW THROAT & HEEL  AT SHEETMETAL SHOP  PER VANE ELBOW OFG: 4 23-MAI  NASSCO SHEETMETAL SHPAE #8  * HULL 418  * DRAWING 501-292  * V2-92007  * V6-1914  * 18 GAUGE GALV. SHEETMETAL  * 22'X12' ELBOW WITH VANE TRACK  * USE TEMPLATE FOR HALF WITH BEND  FITTER BEGINS Al' WORKTABLE		
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2 Al B0 G1 Al B0 P6 A0	2.00	180.
2 PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 2	0.00	
A1 B0 G1 A6 B0 P3 A0 3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL A-f WORKTABLE 5 DIGITS USING AWL AND ASIDE PF -4 ( 4 5 6 7 )	2.00	220.
Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE	1.00	760.
F 8 Al B0 G1 Al B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	8.00	720.
HAMMER AND ASIDE PF 8 ( 4 5 6 7 )  Al B0 G1 (A0 B0 PO F3 )A1 B0 P1 A0 (8) 6 MARK CUT LINES ON SHEETMETAL AT WARMABLE 1 DIGIT USING	1.00	360.
REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (8) 7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	440.
WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 48 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (48) 8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 ( 4 5 6 7 )	1.00	2440.
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 9 REPLACE 2 WEIGHTS FROM TEMPLATE AT WORK-TABLE TO	1.00	2640.
WORKTABLE WITH 3 STEPS F 2 Al B0 G1 A6 B0 P3 A0	2.00	220.

7980.

TOTAL TMU

File Description ? LAYOUT 1/2 THROAT & HEEL WITHOUT TEMPLATES output to line-printer <Y or N> ? N

( 2 0			
FIT	VNELBO.M32  VNELBO.M32  VNELBO.M32	mng \	
SHEE	MARK OUT SHEETMETAL FOR THROAT & HEEL WITH AWL (NO TEMPLE TMETAL SHOP  VANE ELBOW  NASSCO SHEETMETAL SHAPE #8  * HULL 418  * DRAWING 501-292  * V2-92007	•	
	* V6-1914 * 18 GAUGE GLAV. SHEETMETAL * 22'XI2' ELBOW WITH VANE TRACK * MARK OUT HALF WITHOUT BEND FITTER BEGINS AT WORKTABLE		
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORK-1-ABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (8)	1 00	2760 .
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 ( 4 5 6 7 )	1.00	2700 .
3	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (8) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	440.
٨	WORKTABLE AND ASIDE F 4  Al B0 G1 Al B0 P6 A0	4.00	360.
4	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 4 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (4)	1.00	760.
5	POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	1.00	
6	Al B0 G1 Al B0 P6 A0 MARK CORNERS FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL Al' WORKTABLE AND ASIDE PF 8 ( 4 5 6 7)	8.00	720.
7	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	680.
8	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	8.00	720.
9	HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )  Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (8)  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	360.
	REDPEN A-i- WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (8)	1.00	440.
10	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7 )		
11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (48)  MARK IDENTIFICATION ON SHEETMETAL Al- WORKTABLE 1 DIGIT'  USING BLACKPEN AT WORKTABLE AND ASIDE' PF 52 ( 4 5 6 7)	1.00	2440.
	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)	1.00	2640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

34520

Please input file <VNELBO.M33> ?

# File Description ? MARK OUT VANE TRACK & VANES FOR ELBOW

Output to line-printer <Y or N> ? N

(39,3) FIT.WO6 VNELBO.M33 MARK OUT SHEETMETAL FOR VANE TRACK & VANES IN ELBOW WITH AWL AT SHEETMETAL SHOP OFG: 4 22-MAR-83 PER 'JANE ELBOW NASSCO SHEETMETAL SHAPE #8 \* HULL 418 \* DRAWING 501-292 \* V2-92007 V6-1914 \* 18 GAUGE GALV. SHEETMETAL \* 22'X12'X90 DEGREE ELBOW WITH 'JANE TRACK \* CENTER PUNCH VANE RADIUS ON VANE TRACK FITTER BEGINS AT WORKTABLE 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 B0 G1 A6 B0 P6 A0 2.00 280. Αl 2 MARK LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (4) 1.00 760. 3 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 80 Al BO G1 Al BO P6 AO 80.00 7200. 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE F 80 Al B0 G1 Al B0 P6 A0 80.00 7200. 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 80 ( 4 5 6 7 ) (A1 B0 P0 F3 )A1 B0 Pl A0 (80) 1.00 3240. Al BO G1 6 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF.80 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (80) 1.00 3240. 7 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO 1.00 2080. (6) 8 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 20 ( 4 5 6 7 ) Al HO G1 (A1 B0 P1 R3 )A1 B0 Pl A0 (20) 1.00 1040. 9 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P6 A0 ) 1.00 790. 10 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 11 ( 4 5 6 7 ) (A1 B0 P1 R3 )A1 B0 P1 A0 (11) 1.00 590. Al BO G1 11 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )

Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (12)

12 Mark construction lines on sheetmetal at worktable 5

1.00 640.

DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (20) 1000 3640.

13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 5 DIGITS

USING BLACKPEN AT WORKTABLE AND ASIDE PF 61 ( 4 5 6 7

A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (61) 1.00 11020.

TOTAL TMU 417209.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

76240

Al BO G1

#### File Description ? MARK OUT ACCESS COVER AND BACK UP PLATES output to line-printer <Y or N> ? N (39,3) FIT.WO6 VNELBO.M34 MARK OUT SHEETMETAL FOR ACCESS COVER AND BACK UP PLATES WITH AWL AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 22-MAR-83 NASSCO SHEETMETAL SHAPE #8 \* HULL 418 \* DRAWING 501-292 \* V2-92007 \* V6-1914 \* 18 GAUGE GALV. SHEETMETAL \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK \* 11 GAUGE GALV. ACCESS COVER \* 11 GAUGE GALV. BACK UP PLATES FITTER BEGINS AT WORKTABLE 1 MOVE 11 GAUGE SHEETMETAL SCRAP FROM SCRAPBIN TO WORKTABLE A54 B3 G1 A54 B3 P1 A0 1.00 1160. 2 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS Al B0 G1 A6 B0 P6 A0 1.00 140. 3 MARK OUTLINE FROM ACCESS TEMPLATE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) (A1 B0 P1 R3 )A1 B0 P1 A0 (4) 1.00 Al BO G1 240. 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE Al BO G1 Al BO P6 AO 37.00 3330. 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 37 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (37) 1.00 1520. 6 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (6) 1.00 2080. 7 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT (6) 1.00 340. USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) 1.00 540. 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPLEN AT WORKTABLE AND HOLD PF 33 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (33) 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT 1.00 1670. USING BLACKPEN AT WORKTABLE AND ASIDE PF 26 ( 4 56 7)

(A1 B0 P1 R3

11 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE

)A1 B0 P1 A0 (26) 1.00

1340.

WITH 4 STEPS F 4

			WORKTABLE				A6 EAR [				4.00	440.
WIT	4 47 ST	TEPS		A1	в0	G1	A81	в0	P1	A0	1.00	840.

TOTAL TMU 13640,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

89880

Please input file <VNELBO.M35> ?

File Description ? SHEAR 11 GAUGE SHEETMETAL ACCESS COVER & PLATE output to line-printer <Y or N> ? N

(39,3)

FIT • W07 VNELBO.M35

SHEAR 11 GAUGE SHEETMETAL FOR ACCESS COVER AND PLATE WITH 14FT. SHEAR AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE #8

\* HULL 418

- \* DRAWING 501-232
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* SHEAR 11 GAUGE SHEETMETAL PARTS

FITTER BEGINS AT 14FT.SHEAR

POSITION 11 GAUGE SHEETMETAL2 FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS		
A1 B0 G1 A6 B0 P6 A0	1.00	140.
PUSH 14FT.SHEAR-FOOTPEDAL A-f 14FT.SHEAR PROCESS		
Al BO G1 Ml X3 IO AO	1.00	60.
POSITION 11 GAUGE SHEETMETAL2 FROM 14FT.SHEAR TO		
14FT.SHEAR F 11		
A1 B0 G1 A1 B0 P6 A0	11.00	990.
PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 11		
Al BO G1 Ml X3 IO AO	11.00	660.
REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT		
14FT.SHEAR WITH 18 STEPS		
A1 B0 G1 A32 B0 P3 A0	1.00	370.
MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO		
SMALLSHEAR		
A1 B0 G1 A32 B0 F1 A0	1.00	390.
		3701
	A1 B0 G1 A6 B0 P6 A0 PUSH 14FT.SHEAR-FOOTPEDAL A-f 14FT.SHEAR PROCESS A1 B0 G1 M1 X3 IO A0 POSITION 11 GAUGE SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F 11 A1 B0 G1 A1 B0 P6 A0 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 11 A1 B0 G1 M1 X3 IO A0 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 18 STEPS A1 B0 G1 A32 B0 P3 A0 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO SMALLSHEAR	TO 14FT.SHEAR WITH 4 STEPS  A1 B0 G1 A6 B0 P6 A0 1.00  PUSH 14FT.SHEAR-FOOTPEDAL A-f 14FT.SHEAR PROCESS A1 B0 G1 M1 X3 IO A0 1.00  POSITION 11 GAUGE SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR F 11  A1 B0 G1 A1 B0 P6 A0 11.00  PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 11 A1 B0 G1 M1 X3 IO A0 11.00  REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT 14FT.SHEAR WITH 18 STEPS  A1 B0 G1 A32 B0 P3 A0 1.00  MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO SMALLSHEAR

TOTAL TMU

2570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# Please input file <VNELBO.M36> ?

file Description ? SHEAR CHEEKS, THROAT, HEEL AND VANE TRACK Output to line-printer <Y or N> ? N

(39,3)

FIT.W07 VNELBO.M36

SHEAR SHEETMETAL FOR CHEEKS, THROAT, HEEL AND VANE TRACK WITH SMALLSHEAR AT SHEETMETAL SHOP OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE. #8

\* HULL 418

PER VANE ELBOW

- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TURN
- \* THROAT AND HEEL HAVE TWO PARTS EACH

FITTER BEGINS Al' SMALLSHEAR

1 POSITION 18 GAUGE SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS		
A1 B0 G1 A6 B0 P6 A0 2 PUSH FOOTPEDAL AT SMALLSHEAR FOR CUTTING SHEETMETAL PROCESS	1.00	140.
A1 B0 G1 M1 X6 IO A0 3 POSITION 18 GAUGE SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS	1.00	90.
A1 B0 G1 A6 B0 P6 A0 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 30	1.00	140.
A1 B0 G1 M1 X6 IO A0 5 MOVE SHEETMETALSCRAP ( 18 GAUGE ) FROM SCRAPBIN TO	30.00	2700.
SMALLSHEAR A32 B3 G1 A32 B0 P1 A0 6. PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8	1.00	690.
A1 B0 G1 M1 X6 IO A0	8.00	720.
7 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 48 STEPS	1 00	0.60
A1 B0 G1 A81 B0 P3 A0 8 MOVE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE	1.00	860.
A1 B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU 6070.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

8640 .

File	Desc	ription	?	SHEA	λR	CHE	EKS	&	ACCESS	WITH	UNI-SHEAR	
Outpu	ıt to	line-pr	int	ter	<y< td=""><td>or</td><td>N&gt;</td><td>?</td><td>N</td><td></td><td></td><td></td></y<>	or	N>	?	N			

(39,3)

FIT .W08 VNELBO.M37

SHEAR SHEETMETAL FOR CHEEKS AND ACCESS WITH UNI-SHEAR AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292-
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* HAMMER 90 DEGREE EDGE ON THROAT
- \* USE WEIGHT ON BACKUP \_

FITTER BEGINS AT WORKTABLE'

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4		
2	A1 B0 G1 A6 B0 P3 A0 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	4.00	440.
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
4	A1 B0 G1 A1 B0 P3 A0 FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	4.00	240.
	HAMMER AND ASIDE PF 4 (4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4)	1.00	200.
5	OPERATE UNISHEAR ON SHEETMETAL AT WORKTABLE PROCESS F 13		
6.	A1 B0 G1 M6 X173I0 A0 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS. USING	13.00	23530.
	SNIPS AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (32)	1.00	2280.
7	FASTEN ( FLATTEN ) SHEETMETAL TO WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )		
Q	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (32) POSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE F 6	1.00	2280.
	A1 B0 G1 A1 B0 P6 A0	6.00	540.
9	GRIP SHEETMETAL TO WORKTABLE USING CCLAMPS AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )		
10	A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (12) PLACE WEIGHT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	640.
	F 12 A1 B0 G1 Al B0 P3 A0	12.00	720.
11	FASTEN SHEETMETAL ( BEND EDGE ) ON WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 76 ( 4 5 6 7 ) F 3		, = 0 0
1 2	A1 B6 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (76) PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE	3.00	9420.
14	WITH 4 STEPS F 4	4 00	4.40
	A1 B0 G1 A6 B0 P3 A0	4.00	440.

TOTAL TMU 43270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# LIGORE THURS LITE /AMERDA+MORY L.

File Description ? LAP OUT VANED ELBOW

Output to line-Printer <Y or N> ? N

(39,3) FIT .W07 VNELBO.M38

FORM SHEETMETAL ON VANED ELBOW WITH LAP OUT (ROTARY MACHINE) AT SHEETMETAL SHOP

OFG: 4 22-MAR-83 PER VANED ELBOW

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292
- V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X90 DEGREE ELBOW WITH VANE TRACK
- \* FORM LAPOUT OFFSET ON ROTARY MACHINE

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL2	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS	S F 6								

	DIELD F 0									
		A1	В0	G1	Аб	в0	P3	A0	6.00	660.
2	PUSH LAPOUT-SWITCH PROCES	SS F	6							
		A1	В0	G1	М1	Xl6	IO	A0	6.00	1140.
3	REPLACE SHEETMETAL2 FROM	LAP	OUT	TO (	CART	AT L	APOU	T WITH		
	4 STEPS F 6									
						в0			6.00	660.
4	MOVE CART WITH SHEETMETA	L2 F	ROM	LAP(	TUC	ro Pi	TTSB	URGH		
		A1	В0	G1	Аб	В0	P1	A0	1.00	90.

TOTAL TMU 2550.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <VNELBO.M39> ?

# File. Description ? FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

Output to line-printer <Y or N> ? N

(39,3) FIT .W07 VNELBO.M39

FORM SHEETMETAL FOR VANE TRACK ELBOW WITH PITTSBURGH (LOCKFORMER)

AT SHEETMETAL SHOP

OFG: 4 22-MAR-83 PER VANE ELBOW

NASSCO SHEETMETAL SHAPE #8

\* HULL. 418

\* DRAWING 501-292

\* V2-92007

\* V6-1914

\* 18 GAUGE GALV. SHEETMETAL

\* 22'X12'X 90 DEGREE ELBOW WITH VANE TRACK

\* FORM PITTSBURGH

\* FORM 90 DEGREE EDGE ON PITTSBURGH

FITTER BEGINS AT PITTSBURGH

1	PLACE	S	HEETME	TA:	և2	FROM	CART	AT	PITTSBURGH	TO	PITTSBURGH
	WITH	4	STEPS	F	6						

		Al E	30 G1	Аб	В0	Р3	A0	6.00	660.
2	PUSH PITTSBURGH-BUTTON P	ROCESS	F 2						
		A1 B	0 G1	Ml	X32	IO	A0	2.00	700.
3	PUSH AND GUIDE SHEETMETA	L2 THR	OUGH	PITTS	BURG	H F	12		
		A1 B	0 G1	Ml	X0	I3	A0	12.00	720.
4	PUSH AND GUIDE SHEETMETA	L2 THR	OUGH :	PITTS	BURG	H WI	TH 4		
	STEPS F 2								
		Аб В	0 G1	M1	X0	13	A0	2.00'	220.
5	REPLACE SHEETMETAL FROM	PITTS:	BURGH	TO C	CART	ΑT			
	PITTSBURGH WITH 4 STEPS	F 6							
		A1 E	0 G1	Аб	в0	P3	A0	6.00	660.
6	MOVE CART FROM PITTSBURG	H TO W	ORKTA:	BLE					
		A1 B	0 G1	A54	В3	Р1	A0	1.00	600.

TOTAL TMU 3560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

58020

# File Description ? POSITION SPACERS IN PITTSBURGH LOACK

Output to line-Printer <Y or N> ? N

(39,3)

FIT .W07 VNELBO.M40

POSITION SHEETMETAL (SPACERS) FOR PITTSBURGH LOCK WITH HAMMER AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* POSITION STRIPS IN PITTSBURGH LOCK
- \* POSITION FOR SPACERS BEFORE BEND

FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P6 A0 FASTEN (FLATTEN) SHEETMETAL CORNERS TO WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 4 5 6 7 )	2.00	280.
3	A1 B0 G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (16) PLACE SHEETMETAL ( STRIPS ) FROM WORKTABLE TO	1.00	2760.
	SHEETMETAL ( THROAT & HEEL PITTS.) AT WORKTABLE F 4  Al B0 G1 A1 B0 P3 A0	4.00	240.
4	FASTEN SHEETMETAL [STRIPS] TO SHEETMETAL [PITTS.] AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )  Al BO G1 (Al BO PO F6 )A1 BO P1 A0 (8)	1.00	600.
5	POSITION MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	000.
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
6	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 2 STEPS F 2		
7	A1 B0 G1 A3 B0 P3 A0 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO	2.00	160.
•	CORNICEBRAKE		
	A1 B0 G1 A54 B0 F1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

62,990

4970.

TOTAL TMU

Please input file <VNELBO.M41>\* ?

# File Description ? BEND THROAT, HEEL & VANES FOR ELBOW

Output to line-printer <Y or N> ? N

(39,3)

FIT .W07

VNELBO.M41

BEND SHEETMETAL FOR THROAT, HEEL, AND VANES FOR ELBOW WITH CORNICE BRAKE AT SHEETMETAL SHOP

PER VANE ELBOW

OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* BEND HEMMED EDGE ON VANES 180 DEGREES

FITTER BEGINS AT CORNICEBRAKE

1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO CORNICEBRAKE F 14

A1 B0 G1 A1 B0 P6 A0 14.00 1260.

2 OPERATE CORNICEBRAKE-LEVER PROCESS F 74

A1 B0 G1 M6 X42 IO A0 74.00 37000.

3 REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT

CORNICEBRAKE WITH.4 STEPS

Al BO Gl A6 BO P3 AO 1.00 110.

4 MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO TABLE AT HYDROPRESS

A1 B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 39210.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

please input file <VNELBO.M42> ?

File Description ? FORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK
Output to line-printer <Y or N> ? N

(39,3)

FIT .W07 VNELBO.M42

BEND SHEETMETAL FOR RADIUS ON VANES FOR VANE TRACK ELBOW WITH 8 FT. HYDRO PRESS AT SHEETMETAL SHOP
PER VANE ELBOW OFG: 4 22-MAR-83

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* BEND RADIUS ON VANES

FITTER BEGINS AT HYDROPRESS

1	PLACE SHEETMETAL2 FROM CART AT HYDROPRESS TO TABLE AT	
	HYDROPRESS WITH 4 STEPS	
	A1 B0 G1 A6 B0 P3 A0 1.00	110.
2	PLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO HYDROPRESS F 10	
	A1 B0 G1 A1 B0 P3 A0 10.00	600.
3		000.
3		2060
4		3860.
4		2060
		3860.
5	REPLACE SHEETMETAL2 FROM HYDROPRESS TO TABLE AT	
	HYDROPRESS F 10	
	Al BO G1 Al BO P3 AO 10.00	600.
6	REPLACE SHEETMETAL2 FROM TABLE AT HYDROPRESS TO CART AT	
	HYDROPRESS WITH 4 STEPS	
	Al BO G1 A6 BO P3 A0 1.00	110.
7	MOVE CART FROM HYDROPRESS TO SPOTWELDER	
′	Al BO G1 A42 BO F1 AO 1.00	450.
	AI BU GI A42 BU FI AU 1.00	450.
	תיחים דעים איני איני איני איני איני איני איני אי	0 = 0 0
	TOTAL TMU 29	9590.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

# Please input file <VNELBO.M43> ?

File Description ? SPOT WELD BACK UP PLATES TO ACCESS OPENING Output to line-printer <Y or N> ? N

(39,3) FIT .W07

FIT .W07 VNELBO.M43

WELD SHEETMETAL ON BACK UP PLATES TO ACCESS OPENING WITH SPOT WELDER AT SHEETMETAL SHOP PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* TWO PEOPLE ARE NEEDED TO POSITION

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMP FROM WORKTABLE TO SPOTWELDER  A1 B0 G1 A54 B0 P1 A0	1.00	570.
2	POSITION SHEETMETAL FROM CART AT SPOTWELDER TO	1.00	370.
	SPOTWELDER WITH 3 STEPS  Al B0 G1 A6 B0 P6 A0	1.00	140.
3	GRIP SHEETMETAL2 [BACK UP PLATES] TO SHEETMETAL AT WORKTABLE USING CCLAMPS AND ASIDE PF 7 ( 4 5 6 7 )		
	A1 B0 G1 (A54 B3 P3 Cl )A1 B0 P1 A0 (7)	1.00	4 3 1 0
4	POSITION SHEETMETAL2 FROM SPOTWELDER TO SPOTWELDER F 64  A54 B0 G1 A1 B0 P6 A0	64.00	39680.
5	A54 B0 G1 A1 B0 P6 A0 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64	04.00	39000.
	Al BO G1 M6 X6 IO AO	64.00	8960.
6	REPLACE SHEETMETAL FROM SPOTWELDER TO CART AT SPOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOVE CART WITH SHEETMETAL2 FROM SPOTWELDER TO WELDOUT	1 00	0.77.0
	A1 B0 G1 A81 B3 P1 A0	1.00	870.

TOTAL TMU 54640.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

/ 8 X 4 3 0

File Description ? TACK WELD VANE TURNS TO VANE TRACK

output to line-printer <Y or N> ? N

(39,37)

FIT .W07 VNELBO.M44

SHEETMETAL ON up vane turns to vane track with Tack Welder at sheetmetal shop

PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

\* HULL 4 1 8

\* DRAWING 501-292

\* v2-9200/

\* V6-1914

\* 18 GAUGE GALV. SHEETMETAL

\* 22'X12'X90' DEGEE ELBOW WITH VANE TRACK

FITTER BEGINS AT WELDOUT

1 PLACE SHEETMETAL2 FROM CART AT WELDOUT TO WELDOUT WITH 4 STEPS

+ 01E10								
	A1	B0 (	31 A6	5 B0	Р3	A0	1.00	110.
2 POSITION SHEETMET WELDOUT WITH 4		ELDOUT	TO SH	IEETMI	ETAL	AT		
,,		B0 G	_		Р6	A0	1.00	140.
3 OPERATE TACKWELDER	R AT WELDOUT	PROCES	SS F	60				

A1 B0 G1 M6 x3 I0 A0 60.00 6600.

4 REPLACE SHEETMETAL2 FROM WELDOUT TO CART AT WELDOUT

WITH 4 STEPS

A 1 B0 G1 A6 B0 P3 A0 1.00 110.

5 MOVE CART FROM WELDOUT TO WORKABLE

A 1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 7560.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

193990

File Description ? ASSEMBLE ELBOW WITH VANE TRACK		
Output to line-printer <y n="" or=""> ? N</y>		
( 39, 3)  FIT .W07 VNELBO.M45  ASSEMBLE SHEETMETAL FOR VANE TRACK ELBOW WITH HAMMER AT SHEETMETAL SHOP  PER VANE ELBOW OFG: 4 23-M7  NASSCO SHEETMETAL SHAPE #8  * HULL 418  * DRAWING 501-292  * V2-92007  * V6-1914  * 18 GAUGE GALV. SHEETMETAL  * 22'X12'X90 DEGREE ELBOW WITH VANE TRACK  * THROAT & HEEL HAVE 2 PARTS EACH  FITTER BEGINS AT WORKTABLE	AR - 83	
1 PLACE SHEETMETAL FROM CART AT WORK-1-ABLE TO WORKTABLE WITH 3 STEPS		
A1 B0 G1 A6 B0 P3 A0 2 POSITION SHEETMETAL [CHEEK #1] FROM WORKTABLE TO	1.00	110.
SHEETMETAL [THROAT&HEEL] AT WORKTABLE WITH 3 STEPS  A1 B0 G1 A6 B0 P6 A0  3 FASTEN SHEETMETAL [PITTSBURGH LOCK] ON SHEETMETAL AT WORKTABLE 6 STRIKES USING HAMMER AND ASIDE PF 10 ( 4 5	1.00	140.
6 7 )  Al B0 G1 (Al B0 P0 F16 )Al B0 P1 A0 (10) 4 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	1.00	1740.
WORKTABLE F 8 Al B0 G1 Al H0 P6 A0 5 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 3 STRIKES	8.00	720.
USING HAMMERA AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )  Al B0 G1 (AlB0 PO F6 )A1 B0 P1 A0 (8) 6 POSITION SHEETHETAL [VANE TRACK] FROM WORKTABLE 'TO SHEETMETAL [CHEEK, HEEL, & THROAT ASSEMBLY1 AT	1.00	600.
WORKTABLE WITH 3 STEPS  A1 B0 G1 A6 B0 P6 A0 7 POSITION SHEETMETAL [CHEEK#2] FROM WORKTABLE TO SHEETMETAL [CHEEK, HEEL, & V, T, ASSEMBLY3 AT WORK-1-ABLE	1.00	140.
WITH 3 STEPS  A1 B0 G1 A6 B0 P6 A0  8 FASTEN SHEETMETAL (PITTS: LUCK) ON SHEETMETAL AT  WORKTABLE 6 <b>STRIKES</b> USING HAMMER A1 WORKTABLE AND	1.00	140.
ASIDE PF 10 ( 4 5 6 7 )  A1 B0 G1 (A1 B0 P0 P16)A1 B0 P1 A0 (10)  9 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	1.00	1740.
WORKTABLE Al BU UL AL BO P6 A0	8.00	720.
10 FASTEN <b>SETTINGTOOL</b> TO SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )  (A1 B0 P0 F6 )A1 B0 P1 A0 (8)  11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	600.

USING HAMMER AND ASIDE PF 46 ( 4 5 6 7 )

Al B0 Gl (Al B0 PO F32 )Al B0 Pl A0 (46) 1.00 15220.

REPOSITION SHEETMETAL FROM WORKTABLE TO WORKTABLE WITH

3 STEPS

Al B0 Gl A6 B0 P6 A0 1.00 140.

1.3 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES
USING HAMMER AND ASIDE PF 46 ( 4 5 6 7 )

Al B0 Gl (Al B0 P0 F32)Al B0 Pl A0 (46) 1.00 15220.

TOTAL TMU 37230.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Output to line-printer <Y or N> ? N

( 39, 3) FIT • ₩07 VNELBO.M46

RIVET SHEETHETAL FOR VANE TRACK, THROAT, & HEEL LAPS WITH RIVET GUN AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE # 8

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK
- \* RIVET 2 FART THROAT & 2 PART HEEL & V. T.

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSION ON SHEETMETAL [THROAT & HEEL3 AT WORKTABLE USING-STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
2	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (4) MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	1400.
2	AWL AND ASIDE PF 20 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (20)	1.00	1040.
3	FASTEN 5 / 32DRILL-BIT TO SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE Al B0 G1 A0 B0 (P3 Al F6 )A1 B0 P1 A0 (5)	1.00	540.
4	OPERATE DRILLMOTOR ON SHEETMETAL PROCESS F 20	1.00	340.
	Al BO G1 M6 X6 IO AO	20.00	2800.
5	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 20		
	Al BO G1 Al BO P6 AO	20.00	1800.
6		00 00	2200
7	Al B0 G1 M6 X3 I0 A0 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	20.00	2200.
	A1 B0 G1 A1 B0 P6 A0	4.00	360.
8	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING		
	AWL AND ASIDE PF 4 ( 4 5 6 7 )	1 00	7.00
7	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4)  OPERATE DRILLMOTOR PROCESS F 12	1.00	760.
•	A 1 B 0 G1 M6 X6 I0 A0	12.00	1680.
10	OPERATE RIVETGUN PROCESS F 12		
	A1 B0 G1 M6 X3 I0 A0	12.00	1320.

utput to line-printer <Y or N> ? N

( 39, 3 )

F I T ..... VNELBO.M47)

THREAD SHEETMETAL FOR BOLT HOLES IN ELBOW BACK UP PLATE WITH TAP AT SHEETMETAL SHOP OFG: 4 23-MAR-83

- \* NASSCO SHEETMETAL SHAPE #8
- \* HOLE 418
- \* DRAWING 501-292
- \* V2-92001
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22 X 12 X 90 DEGREES ELBOW WITH VANE TRACK
- \* TAP 11 GAUGE BACK UP PLATE
- \* DRILL CLEARANCE IN ACCESS PLATE FITTER BEGINS AT WORKTABLE

1 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ELBOW ASSEMBLY] AT WORKTABLE WITH 3 STEPS		
A1 B0 G1 A6 B0 P6 A0	1.00	140.
2 LOOSEN 5 / 32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND HOLD		
Al BO G1 AO BO (P3 A1 L6 )AO BO PO AO (5)	1.00	520.
3 FASTEN 7 / 32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
Al B0 G1 A0 B0 (P3 Al F6 )A1 B0 P1 A0 (7)	1.00	740.
4 OPERATE DRILLMOTOR PROCESS F 4 Al B0 G1 M6 X6 I0 A0	4.00	560.
5 HOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE	1 00	1000
A96 B0 G1 A96 B3 P1 A0	1.00	1970.
6 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 4	4 00	F.C.0
Al B0 G1 M6 X6 I0 A0 7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	4.00	560.
F 4		
Al BO G1 A1 BO P6 A0	4.00	360.
8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS	1.00	300.
USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	1.00	1160.
9 OPERATE DRILLMOTOR PROCESS F 29		
Al BO G1 M6 X6 IO AO	29.00	4060.
10 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS		
USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	1160
A1 B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4)	1.00	1160.
11 REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL TO		
MODERADIE		
WORKTABLE  Al BO G1 Al BO D3 AO	1 00	60
Al BO G1 Al BO P3 AO	1.00	60.
Al B0 G1 Al B0 P3 A0 12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29		
Al BO G1 Al BO P3 AO	1.00	60. 4060.
Al B0 G1 Al B0 P3 A0 12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29 Al B0 G1 M6 X6 I0 A0		
Al B0 G1 Al B0 P3 A0 12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29 Al B0 G1 M6 X6 I0 A0 13 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTARLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE A1 B0 G1 Al B0 P3 L6 A1 B0 P1 A0		
Al B0 G1 Al B0 P3 A0 12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29 Al B0 G1 M6 X6 I0 A0 13 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTARLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE A1 B0 G1 Al B0 P3 L6 A1 B0 P1 A0 14 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	29.00	4060.
Al B0 G1 Al B0 P3 A0 12 OPERATE DRILLMOTOR [TAPINGMOTOR] PROCESS F 29 Al B0 G1 M6 X6 I0 A0 13 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTARLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE A1 B0 G1 Al B0 P3 L6 A1 B0 P1 A0	29.00	4060.

15 OPERATE DRILLMOTOR ON SHEETMETAL [ACCESS COVER] PROCESS F 33

Al B0 G1 M6 X6 I0 A0 33.00 4620.

TOTAL TMU 20250.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

## File Description ? CUT RUBBER GASKET FOR ACCESS PLATE

### Output to line-printer <Y or N> ? N

( 39, 3) FIT .W07 VNELBO.M48	
CUT RUBBER FOR ACCESS PLATE GASKET WITH UTILITY KNIFE AT	
SHEETMETAL SHOP PER VANE ELBOW OFG: 4 23-MAR-8 NASSCO SHEETMETAL SHAPE #8	83
* HULL 418  * DRAWING 501-292  * V2-92007  * V6-1914  * 18 GAUGE GALV. SHEETMETAL	
* 22 X 12 X 90 DEGREE ELBOW WITH WANE TRACK  * USE AC. PLATE FOR TEMPLATE TO CUT RUBBER FITTER BEGINS AT WORKTABLE	
1 MOVE-SHEETMETAL2 [ACCESS COVER] AND BLACKPEN [INK PEN]	
FROM WORKTABLE TO GASKET-CUTTING-TABLE  A 1 B0 G1 A152B0 P1 A0 1  2 MOVE UTILITY-KNIFE, 3 / 8HOLE-PUNCH AND MALLET FROM	.00 1550.
TOOLROOM TO GASKET-CUTTING-TABLE  AY6 B0 G1 A96 B0 P1 A0 1	.00 1940.
3 PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 3 STEPS	.00 110.
Al B0 G1 A6 B0 P3 A0 1 4 place Sheetmetal2 [access COVER3 FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE	.00 110.
A1 B0 G1 A1 B0 P3 A0 1 5 CUT RUBBER TRACING SHEETMETAL [ACCESS COVER] AT	.00 60.
GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AND ASIDE PF 4 ( 4 5 6 7 )	
	.00 4990.
TO GASKET-CUTTING-TABLE  A 1 B 0 G1 A1 B0 P3 A0 1  7 POSITION 3 / 8HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO	.00 60.
RUBBER AT GASKET-CUTTING-TABLE F 33	.00 2970.
8 fasten HOLE punch TO rubber at GASKET-CUTTING-TABLE 2 strikes USING mallet AT GASKET-CUTTING-TABLE AND ASIDE PF 33 ( 4 5 6 7 )	
A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (33) 1 9 MOVE SHEETMETAL2 [ACCESS PLATE] AND RUBBER FROM	.00 2350.
GASKET-CUTTING-TABLE <b>TO WORKTABLE A1 B0</b> G1 A152 B3 P1 A0 1 <b>10 MOVE HOLE PUNCH, UTILITY-KNIFE, AND MALLET FROM</b>	.00 1580.
GASKET-CUTTING-TABLE TO TOOLROOM	.00 2500.

TOTAL TMU 18110.

File Description ? DEBURR ACCESS COVER & ACCESS HOLE

Output to line-printer <Y or N> ? N

(39, 3)

FIT • W07 VNELBO.M49

DEBURR SHEETMETAL FOR ACCESS COVER & ACCESS HOLE WITH FILE AT SHEETMETAL SHOP

PER VANE ELBOW OFG: 4 23-MAR-83

NASSCO SHEETMETAL SHAPE #8

\* HULL 418

\* DRAWING 501-292

\* V2-92007

\* V6-1914

\* 18 GAUGE GALV. SHEETMETAL

\* 22'X12'X90 DEGREE ELBOW WITH VANE TRACK

\* DEBURR BOLT HOLES & ROUGH EDGES

FITTER BEGINS AT WORKTABLE

1 MOVE CLIE EDOM MOOLDOOM MO MODEMADIE		
1 MOVE GLUE FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1		
ARM-STROKE USING FILE AND HOLD PF 30 ( 4 5 6 7 )  'BV G1 (A1 B0 P1 C1 )A0 B0 P0 A0 (30)	1.00	920.
3 DEBURR SHEETMETAL ELBOW ASSEMBLY? AT WORKTABLE 1	1.00	720.
ARM-STROKE USING FILE AND ASIDE PF 30 ( 4 5 6 7 )		
A 1 B 0 G 1 (A1 B0 P1 C1 )A1 B0 P1 A0 (30)	1.00	9 4 0
4 MOVE RUBBER WITH 0 STEPS FROM GASKET-CUTTING-TABLE TO		
WORKTABLE WITH 0 STEPS Al B0 G1 Al B3 P1 A0	1.00	70.
5 GRIP GLUE TO RUBBER AT WORKTABLE 2 SQ.FT. USING BRUSH	1.00	70.
AND ASIDE		
A96 B0 G1 A96 B3 P3 C1 Al B0 P1 A0	1.00	2020.
6 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO		
SHEETMETAL [ELBOW] AT WORKTABLE  Al BO G1 A1 BO P3 A0	1.00	60.
7 POSITION BOLT FROM WORKTABLE TO SHEETMETAL [ELBOW] AT	1.00	00.
WORKTABLE		
A1 B0 G1 A1 B0 P6 A0	1.00	90.
8 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS		
USING WRENCH AT WORKTABLE AND ASIDE PF $4$ ( $4$ 5 $6$ 7 ) P3 F24)A1 B0 P1 A0 (4)	1.00	1160.
7 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	1.00	1100.
A0 B0 g0 a0 b0 p0 110 a0 b0 p0 a0	1.00	100.

7330.

TOTAL TMU

### Please input file <VNELBO.M30> ?

### File Description ? WELD ELBOW WITH VANE TRACK

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01

VNELBO.M30

WELD VANE TRACK ELBOW WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH OFG: 4 22-JUL-83

PER VANE TRACK ELBOW WELDING NASSCO SHEETMETAL SHAPE 8

- \* HULL418
- \* DRAWING 501-292
- \* V2-92007
- \* V6-1914
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X12' ELBOW WITH VANE TRA--
- \* --WITH 9 TURN VANES
- \* TACK WELD WITH 1' TACKS
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS WORK

	* FITTER TRANSPORTSHEETMETAL		
	FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETHETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	FITTER HOVE CART FROM WORKTABLE TO WELDTABLE Al B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELD-TABLE TO WELDTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	1 00	270
Е	A3 B0 G1 M1 X0 I0 A32 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDHACHINES	1.00	370.
5	TO ON AT WELDMACHINES		
	Al BO G1 Ml XO IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1		
	WRIST-TURN USING HAND		
-	Al BO G1 Al BO P1 F3 AO BO PO AO	1.00	70.
/	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	Al BO G1 M3 XO IO Al	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	_,,,	
	TO SHEETMETAL ASSEMBLY AT WELDTABLE		
	A3 B3 G1 Al B0 P6 A0	1.00	140.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS	1 00	120
10	Al B0 G1 Ml X10 I0 A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	1.00	130.
ΤU	ASSEMBY AT WELDTABLE F 70		
	ASSEMBLAL WEDDIADDE F 70  Al BO G1 Al BO P6 AO	70.00	6300.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 22	, , , ,	
	Al BO G1 Ml XO IO Al	22.00	880.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL		

	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 70		
	Al BO G1 Al B6 P6 AO	70.00	10500.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 22		
	Al BO G1 M6 X81 IO AO	22.00	19580.
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 22		
	Al BO G1 M1 XO IO Al	22.00	880.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	22( 4567 )		
	Al B0 G1 (A1 B0 P1 Cl0 )A1 B0 P1 A0 (22)	1.00	2680.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
	WELDTABLE WITH 4 STEPS F 2	0 00	000
	Al B0 G1 A6 B0 P3 A0	2.00	220.
17	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE	1 00	1240
	Al B0 G1 A131B0 P1 A0	1.00	1340.
		#TT	45000
	TOTAL TI	VIU	45000.

File Description ? WELD ELBOW WITH VANE TRACK
Output to line-printer <Y or N> ?

## SHEEFMETAL SHAPE # 9

# 10"x 5" to 8"x 5" RECTANGLE TO RADIUS CORNERS

FAB	53520	32 MIN
MARK OUT	27960	16 MIN
WELD	- 10200	6 MIN
TOTAL	9/680	55 MIN

File Description ? MARK OUT SHEETMETAL FOR RECT. TO RADIUS CORNERS
Output to line-minter <Y or N> ? N

FIT SHEE	9, 1) .W11 RCT2RC.M01  MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITMETAL SHOP RECTANGULAR TO RADIUS CORNERS OFG: 4 12-MA NASSCO SHEETMETAL SHAPE 9 * 20 GAUGE GALV. SHEETMETAL * 10'X5' TO 8'X5' RADIUS CORNERS 12'L *WITH 1 1/2' RADIUS CORNERS * MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE		AT
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4  A1 B0 G1 A6 B0 P6 A0	4.00	560.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4		
3	A1 B0 G1 A6 B0 P6 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	4.00	560.
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) POSITION CFUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 40	1.00	2920.
5	Al B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	40.00	4400.
6	HAMMER AND ASIDE PF 30 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (30)  REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE  WITH 3 STEPS F 4	1.00	1240.
7		4.00	440.
8	Al B0 G1 A6 B0 P3 A0 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	2.00	220 .
9	REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	840.
10	ASIDE PF 84 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (84)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	4240.
11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )	1.00	2640.
12	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (5) MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00	1740.
13	AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE WITH 3 STEPS PF 6 ( 4 5 6 7 )	1.00	340.

	A1 B0 G1 (A6 B0 P6 A0 )	1.00	740.
14	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS		
	USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5)	1.00	940.
15	MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING		
	REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )		
	(A1 B0 P1 R16 )A1 B0 P1 A0 (5)	1.00	940.
16	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 32 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (32)	1.00	1640.
1.7	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
	71 70 71 71 70 71 72 71 70 71 70 (50)	1 00	0640
1.0	Al BO G1 (Al BO P1 R3 )Al BO P1 AO (52)	1.00	2640.
18	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2	2 00	000
1.0	Al BO G1 A6 BO P3 A0	2.00	220.
19	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR	1 00	700
	A1 B0 G1 A67 B0 P1 A0	1.00	700.
	попат пмт	т	27060
	TOTAL TMI	J	27960.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS ille Description ?

Output to line-printer <Y or N> ? N

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH   SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH   SMALL 8FT. SHEAR AT SHEETMETAL SHOP   PER RECTANGULAR TO RADIUS CORNERS	2222	out to like printed to the . H		
SMALLSHEAR WITH 4 STEPS F 2  Al BO G1 A6 BO P6 AO 2.00 280.  2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS Al BO G1 Ml X6 IO AO 1.00 90.  3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS F 15  Al BO G1 A3 BO P6 AO 15.00 1650.  4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15 Al BO G1 Ml X6 IO AO 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS Al BO G1 A32 BO P3 AO 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	FIT SMAI	.W11 RCT2RC.M02  SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNE LL 8FT. SHEAR AT SHEETMETAL SHOP  RECTANGULAR TO RADIUS CORNERS OFG:  NASSCO SHEETMETAL SHAPE 9  * 20 GAUGE GALV. SHEETMETAL  * 10'X5' TO 8'X5' RADIUS CORNERS 12'L  *WITH 1 1/2' RADIUS CORNERS  * SHEAR 1 1/2, STRIPS FOR RADIUS CORNERS		
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS Al B0 G1 Ml X6 IO A0 1.00 90.  3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS F 15 Al B0 G1 A3 B0 P6 A0 15.00 1650.  4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15 A1 B0 G1 Ml X6 IO A0 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS Al B0 G1 A32 B0 P3 A0 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	1	SMALLSHEAR WITH 4 STEPS F 2	7.0	200
Al B0 G1 Ml X6 IO A0 1.00 90.  3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS F 15  Al B0 G1 A3 B0 P6 A0 15.00 1650.  4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15  A1 B0 G1 Ml X6 IO A0 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS  Al B0 G1 A32 B0 P3 A0 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	2		A0 2.00	280.
2 STEPS F 15  Al B0 G1 A3 B0 P6 A0 15.00 1650.  4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15  A1 B0 G1 M1 X6 I0 A0 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS  Al B0 G1 A32 B0 P3 A0 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		Al BO G1 Ml X6 IO		90.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15 A1 B0 G1 M1 X6 I0 A0 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS A1 B0 G1 A32 B0 P3 A0 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	3		R WITH	
A1 B0 G1 M1 X6 I0 A0 15.00 1350.  5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS Al B0 G1 A32 B0 P3 A0 1.00 370.  6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE			A0 15.00	1650.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 20 STEPS Al B0 G1 A32 B0 P3 A0 1.00 370. 6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	4		70 15 00	1250
SMALLSHEAR WITH 20 STEPS Al B0 G1 A32 B0 P3 A0 1.00 370. 6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	_		AU 15.00	1350.
Al BO G1 A32 BO P3 AO 1.00 370. 6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	5			
			A0 1.00	370.
Al B0 G1 A67 B3 P1 A0 1.00 730.	6	MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WOR	KTABLE	
		Al B0 G1 A67 B3 P1	A0 1.00	730.
TOTAL TMU 4470.			TOTAL TMU	4470.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS jutput to line-printer <Y or N> ? N\

(39, 1)RCT2RC.M03 FIT .W11

SHEAR RADIUS FOR. RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE

NASSCO SHEETMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

- \* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
- \* --WITH 1 1/2. RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00
2 MOVE UNISHEAR2 FROM	I TOOLROOM TO WORKTABLE	
	A96 B0 G1 A96 B3 P1 A0	1.00
3 OPERATE UNISHEAR AT	r worktable process f 4	
	Al B0 G1 M6 X173I0 A0	4.00

4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 C3 )A1 BO P1 AO (8) 1.00 600. 5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3

STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F6 )A1 B0 Pl A0 (16) 1.00 1160. 6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE

WITH 4 STEPS F 2 Al B0 G1 A6 B0 P3 A0 2.00 220 •

7 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO LAPOUT Al B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 11870.

110.

1970.

7240.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16340

## File Description ? FORM LAP END OR RECTANGULAR TO RADIUS CORNERS

utput to line-printer (Y or N> ? N

(39, 1)RCT2RC.M04 FIT .W11

FORM LAP END ON RECTANGULAR TO RADIUS CORNERS WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 20 GAUGE GALV. SHEETMETAL \* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
- \* --WITH 1 1/2' RADIUS CORNERS

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2		
	Al BO G1 Ml X16 IO AO	2.00	380.
3	PUSH AND GUIDE SHEETMETAL THROUGH LAPOUT WITH 2 STEPS		
	A3 B0 G1 Ml X0 I3 A0	1.00	80.
4	REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH		
	4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
5	HOVE CART WITH SHEETMETAL FROM LAPOUT TO WORKTABLE		

Al B0 G1 A54 B3 P1 A0

TOTAL TMU 1500.

1.00

600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,840

File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M05

BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH LEAF BRAKE AT SHEETMETAL SHOP

OFG: 4 13-MAY-83 PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEEMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

- \* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--\* --WITH 4' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1	MOUE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE	1 00	0.4.0
2	Al B0 G1 A81 B0 P1 A0 GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AT	1.00	8 4 0
3	LEAFBRAKE AND ASIDE  A1 B0 G1 A1 B0 P3 C1 A1 B0 P1 A0  POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO  LEAFBRAKE F 2	1.00	90.
	Al BO G1 Al BO P6 AO	2.00	180.
4	OPERATE LEAFBRAKE-LEVER PROCESS F 2	2.00	100.
_	Al BO G1 M6 X16 IO AO	2.00	480.
5	POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 24		
	Al BO G1 Al BO P6 AO	24.00	2160.
6	OPERATE LEAFBRAKE-LEVER PROCESS F 24		
	Al BO G1 M6 X16 IO AO	24.00	5760.
7	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2		
8	AL BO G1 A6 BO P3 AO MOVE CART WITH SHEETMETAL FROM LEAFBRAKE TO WORKTABLE	2.00	220 •
	Al B0 G1 A81 B3 P1 A0	1.00	870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

28440

TOTAL TMU 10600.

# File Description ? FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

RCT2RC.M06

FIT. W 1 1 FORM RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH HAND-ROLLER AT SHEETMETAL SHOP
PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

- \* 10'X5' TO 8'X5' RADIUS CORNERS 12'L-- -
- \* --WITH 1 1/2' RADIUS CORNERS
- \* CHECK COLLAR RADIUS WITH TRANSF. RADIUS FITTER BEGINS AT WORKBENCH

1	POSITION SHEETMETAL 2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4  Al B0 G1 A6 B0 P6 A0	4.00	560.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT WORKTABLE 3 SPINS USING FINGERS F 4		
	Al B0 G1 A67 B3 P1 F6 A0 B0 P0 A0	4.00	3160.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 8		
	A67 B3 G1 M6 X0 I0 A0	8.00	6160.
4	PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO		
	SHEETMETAL AT WORKBENCH F 8		
	Al BO G1 Al BO P3 AO	8.00	480.
5	REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4		
	Al BO G1 A6 BO P3 A0	4.00	440.
6	MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE		
	Al BO G1 A32 BO P1 A0	1.00	350.

TOTAL TMU 11150.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

39,590

File Description ? BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

RCT2RC.M07 FIT .W11

BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH FAN-BRAKE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS

OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 20 GAUGE GLAV. SHEETMETAL \* 10'X8' TO 8'X5' RADIUS CORNER 12'L--
- \* --WITH 1 1/2' RADIUS CORNERS

FITTER BEGINS AT PANBRAKE

1	POSITION	SHEETMETAL	FROM	CART	AT	PANBRAKE	TO	PANBRAKE
	WITH 4 S	STEPS F 2						

Al BO G1 A6 BO P6 A0 2 FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 5	2.00	280.
WRIST-TURNS USING WRENCH' AT PANBRAKE AND ASIDE A1 B0 G1 Al B0 P3 F10 Al B0 P1 A0	1.00	180.
3 OPERATE PANBRAKE-LEVER PROCESS F 6		
Al BO G1 M6 X96 IO AO	6.00	6240.
4 REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE WITH 4 STEPS		
A1 B0 G1 A6 B0 P3 A0	1.00	110.
5 MOVE CART WITH SHEETMETAL2 FROM PANBRAKE TO WORKTABLE  A1 B0 G1 A54 B3 P1 A0	1.00	600.
AI BU GI A54 B5 PI AU	1.00	000.

TOTAL TMU 7410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? M

97000

## File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

RCT2RC.M08 FIT .W11

ASSEMBLE SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH 'RIVET GUN AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

\* 10'X5' TO 8\*X5' RADIUS CORNER 12' L-\* -- WITH 1 1/2' RADIUS CORNERS

\* HOLD PIECES WITH VISEGRIPS WHILE --

\* --DRILLING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		,
	Al BO G1 Al BO P6 AO	2.00	180.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING	_,,,	
5			
		4 00	
	Al B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2)	1.00	140.
4	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al BO G1 Al BO P3 F6 Al BO P1 AO	1.00	140.
_		1.00	T40.
5	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	Al BO G1 Al BO P6 AO	2.00	180.
6	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2		
	A1 B0 G1 M6 X6 I0 A0	2.00	280.
7	POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT	2.00	200.
,			
	WORKTABLE F 2	0 00	100
	Al BO G1 Al BO P6 AO	2.00	180.
88	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
0		2.00	100.
D		0 00	000
	Al BO G1 M6 X3 IO AO	2.00	220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

48720

TOTAL TMU 1720.

File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.MO9

TACK RADIUS CORNERS ON RECTANGULAR TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

- \* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--
- \* --WITH 1 1/2' RADIUS CORNERS
- \* COMPLETE WELDING AT WELD AREA
- \* SEE RCT2RC.M10

FITTER BEGINS AT WORKTABLE

1	MOVE [CLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT Al B0 G1 A54 B3 P1 A0	1.00	600.
2	POSITION SHEETMETAL FROM WELDOUT TO SHEELMETAL2 AT WELDOUT F 4		
	Al BO G1 Al BO P6 AO	4.00	360.
3	GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING		
	[CLAMPS AT WELDOUT AND ASIDE PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0	(8) 1.00	440.
4	POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 14		
	Al BO G1 Al BO P6 AO	14.00	1260.
5	OPERATE TACKWELDER AT WELDOUT PROCESS F 14		
	Al BO G1 M6 X3 IO AO	14.00	1540.
6	MOVE [CLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE'		
	Al B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 4800.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

53,520

### File Description ? WELD RECTANGULAR TO RADIUS CORNERS

output to line-Printer <Y or N> ? N

(	3	9	,	3	)

WELD .W01 RCT2RC.M10

WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH

OFG: 4 21-JUL-83 PER RECTANGULAR TO RADIUS CORNERS

WELDING NASSCO SHEETMETAL SHAPE 9

- \* 20 GAUGE GALV. SHEETMETAL
- \* 10'X5 TO 8'x5' RADIUS CORNERS 12'L 
  \* --WITH 1 1/2' RADIUS CORNERS
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS WORK

	* FITTER TRANSPORTS SHEETMETAL FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
2	Al BO G1 A6 BO P3 AO FITTER MOUE CART FROM WORKTABLE TO WELDTABLE	1.00	110.
3	Al B0 G1 A131B3 P1 A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
4	WELDTABLE WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0  WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	1.00	110.
4	WELDOK POSH POWER SUPPLI BOTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO AT WELDMACHINES	1 00	4.0
6	Al B0 G1 M1 X0 I0 Al WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	1.00	40.
7	Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
	WELDMACHINES TO ON AT WELDMACHINES  Al BO G1 M3 X0 IO Al	1.00	60.
a	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 2  A3 B3 G1 A1 B0 P6 A0	2.00	280.
	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2 Al B0 G1 Ml X10 I0 A0	2.00	260.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	4 00	260
11	Al B0 G1 Al B0 P6 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4 Al B0 G1 Ml X0 I0 A1	4.00	360. 160.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4	1.00	100.
13	Al B0 G1 A1 B6 P6 A0 OPERATE WELD STINGER-BUTTON1 PROCESS F 4	4.00	600 .
14	Al B0 G1 M6 X81 I0 A0 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4 Al B0 G1 Ml X0 I0 Al	4.00	3560. 160.
15	Al B0 G1 M1 X0 I0 Al WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 40 ( 4 5 6 7	·I. UU	100.

## RCTZ RC M 10

Al BO G1 (A1 BO P1 C1 )	A1 B0 P1 A0 (40)	1.00 1240.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTA	ABLE TO CART AT	
WELDTABLE WITH 4 STEPS		
Al BO G1 A6	5 BO P3 A0	1.00 110.
17 FITTER MOVE CART FROM WELDTABLE TO WORK	KTABLE	
Al BO G1 Al	.31B0 P1 A0	1.00 1340.
	TOTAL '	ΓMU 10200.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-Printer <Y Or N> ? N

(	39,	1)

FIT • W11 RCT2RC.M11

RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 13-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 20 GAUGE GALV. SHEETMETAL

\* 10'X5' TO 8'X5' RADIUS CORNERS 12'L--

\* --WITH 1 1/2' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
	Al BO G1 Al BO P6 AO	2.00	180.
2	MARK RIVET HOLES FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (16)	1.00	840.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16		
	Al BO G1 Al BO P6 AO	16.00	1440.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 16		
	Al BO G1 M6 X6 IO AO	16.00	2240.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABE I F 16		
	Al BO G1 Al BO P6 AO	16.00	1440.
6	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16		
	Al BO G1 Al BO P6 AO	16.00	1440.
7	OPERATE RIVETGUN AT WORKTABLE PROCESS F 26		
	Al BO G1 M6 X3 IO AO	26.00	2860.
8	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16		

Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (16) 1.00

AO BO GO AO BO PO T10 AO BO PO AO 1.00

Al B0 G1 Al B0 P6 A0 16.00

TOTAL TMU 12820.

1440.

840.

100.

67,040

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help>?

9 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING

10 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

CAULKINGGUN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

SHEET METAL SHAPE # 9

# 30" × 15" TO. 25" X 20" RECFANGULAL TO RADIUS CORNERS

FAB	10,3,310	61 MIN.
MARK out	29,630	17 MIN.
WELD	10,740	6 MIN.
	142,680	85 MIN.

File Description ? MARK OUT RECTANGULAR TO RADIUS CORNERS
Output to line-printer <Y or N ? N

FIT SHEE	9, 1)  • W11  RCT2RC.M30  MARK OUT SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WIETMETAL SHOP  RECTANGULAR TO RADIUS CORNERS  NASSCO SHEETMETAL SHAPE 9  * 16 GAUGE GALV. SHEETMETAL  * 30'X15' TO 25'X20' RADIUS CORNERS 40'L  *WITH 5' RADIUS CORNERS  * HARK OUT WITH TEMPLATE  FITTER BEGINS AT WORKTABLE		AT
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2  Al B0 G1 A3 B0 P6 A0	2.00	200.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 8		
3	Al B0 G1 A6 B0 P6 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	8.00	1120.
4	Al B0 Gl (Al B0 Pl R16 )Al B0 Pl A0 (16) POSITION CPUNCH FROM 'WORKTABLE TO TEMPLATE AT WORKTABLE F 40	1.00	2920.
5	A1 B0 G1 A1 B0 P6 A0 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING	40.00	3600
6	HAMMERA AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P0 P3 )A1 B0 P1 A0 (40)  REMOVE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE  WITH 3 STEPS F 8	1.00	1640.
7		8.00	720,
8	Al BO G1 A3 BO P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	120.
9	USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
10	ASIDE PF 84 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (84)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	4240.
11	Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (52) MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
12	STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (5) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1740.
	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R3 )A1 BO P1 A0 (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 )	1.00	340.

Al B0 G1 (Al B0 P6 )A0 (6) 1.00 4	140.
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS	
USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )	
Al BO Gl (A1 BO P1 R16 )A1 BO P1 AO (5) 1.00	940.
15 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING	
REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )	
Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (5) 1.00	940.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	
ASIDE PF 32 ( 4 5 6 7 )	
'	540.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	
USING BLACKPEN AI WORKIABLE AND ASIDE PF 32 ( 4 5 0 7	
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00 26	540.
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	, , ,
WITH 4 STEPS	
	L10.
19 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	
Al B0 G1 A67 B0 P1 A0 1.00 7	700.
TOTAL TMU 2 9	630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?

File Description ? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS
File Description ?

Output to line-printer (Y or N> ? N

(39, 1)

FIT .Wll RCT2RC.M31

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH

SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 16 GAUGE GALV. SHEETMETAL

- \* 30'X15' TO 25'X20' RADIUS CORNERS 40'L -
- \* WITH 5' RADIUS CORNERS
- \* SHEAR 1 1/2' STRIPS FOR RADIUS CORNERS

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	Al BO G1 Ml X6 IO AO	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 15		
	Al BO G1 Al BO P6 AO	15.00	1350.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 15		
	Al BO G1 M1 X6 IO AO	15.00	1350.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH 10 STEPS F 2		
	Al B0 G1 Al6 B0 P3 A0	2.00	420.
6	MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE		
	Al B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU

4310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M32

SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 16 GAUGE GALV. SHEETMETAL
- \* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
- \* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE		
WITH 4 STEPS		
Al B0 G1 A6 B0 P3 A0	1.00	110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8		
Al BO G1 M6 X173IO AO	8.00	14480.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16)	1.00	1160.
5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 4 STRIKES		
USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
Al B0 G1 (Al B0 P0 F10 )Al B0 P1 A0 (16)	1.00	1800 .
6 REPLACE SHEETHETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F 2		
Al BO G1 A6 BO P3 A0	2.00	220.
7 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT	_,,,	,
Al B0 G1 A54 B0 P1 A0	1.00	570.
111 20 01 1131 20 11 110	1.00	370.

TOTAL TMU 20310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?

24,620

File Description ? FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS
Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M33

FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS WITH

LAPOUT MACHINE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 16 GAUGE GALV. SHEETMETAL

- \* 30'X15' TO 225'X20' RADIUS CORNERS 40'L
- \* WITH 5' RADIUS CORNERS
- \* TWO FITTERS ARE REQUIRED

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS	F 4								

		Al BO	G1	Аб	в0	P3	A0	4.00	440.
2	PUSH LAPOUT-SWITCH PROCES	SS F 4							
		Al BO	G1				A0	4.00	760.
3	PUSH AND GUIDE SHEETMETA	L THROU	IGH LA	LUOA	riw :	'H 2	STEPS		
	F 4								
		A3 B0	G1	M1	X0	I3	A0	4.00	320.
4	REPLACE SHEETMETAL FROM	LAPOUT	TO CA	ART A	T LA	POUT	C WITH		
	4 STEPS F 4								
		Al BO			В0	Р3	A0	4.00	440.
5	MOUE CART WITH SHEETMETA	L FROM	LAPOU	JT TC	) COR	NICE	EBRAKE		
		Al BO	G1	A32	в0	Ρ1	A0	1.00	350.

TOTAL TMU 2310,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H far help> ?

26,930

File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS
Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M34

BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH CORNICE BRAKE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 16 GAUGE GALV. SHEETMETAL

- \* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
- \* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1 MOVE VISEGRIPS FROM WORKTABLE TO CORNICEBRAKE Al B0 G1 A54 B0 P1 A0 2 GRIP ADJUSTMENT ROD ON CORNICEBRAKE USING VISEGRIPS	1.00 AT	570.
CORNICEBRAKE AND ASIDE  Al B0 G1 Al B0 P3 Cl Al B0 P1 A0  3 POSITION SHEETMETAL FROM CART AT CORNICEBRAKE TO	1.00	90.
CORNICEBRAKE WITH 4 STEPS F 4  A1 B0 G1 A6 B0 P6 A0	4.00	560.
4 OPERATE CORNICEBRAKE-LEVER PROCESS F 4	1.00	300.
A1 B0 G1 M6 X42 I0 A0	4.00	2000.
5 POSITION SHEETMETAL FROM CORNICEBRAKE TO CORNICEBRA F 80	AKE	_,_,
A1 B0 G1 Al B0 P6 A0	80.00	7200.
6 OPERATE CORNICEBRAKE-LEVER PROCESS F 80		
A1 B0 G1 M6 X42 I0 A0	80.00	40000.
7 REPLACE SHEETMETAL FROM CORNICEBRAKE TO CART AT		
CORNICEBRAKE WITH 4 STEPS		
A1 B0 G1 A6 B0 P3 A0	1.00	110.
8 MOVE CART WITH SHEETMETAL FROM CORNICEBRAKE TO		
HAND-ROLLER AT WORKBENCH		
A1 B0 G1 A32 B3 P1 A0	1.00	380.

TOTAL TMU 50910.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

7.7,840

File Description ? FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS File Description. ?

Output to line-Printer <Y or N> ? N

(39,1)

.W11 RCT2RC.M35 FIT

FORM RADIUS ON COLLARS FOR RECTANGULAR TO RADIUS CORNERS WITH HAND OPERATED ROLLER AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 16 GAUGE GALV. SHEETMETAl

- \* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
- \* WITH 5' RADIUS CORNERS

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS		
Al B0 G1 A6 B0 P6 A0	1.00	140.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT WORKBENCH 3 SPINS USING FINGERS F 4		
Al BO G1 Al BO P1 F6 AO BO PO AO	4.00	400 •
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 8	1.00	400 ●
Al BO G1 M6 XO IO AO	8.00	640 .
4 PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO	0.00	010 .
SHEETMETAL AT WORKBENCH F 8		
Al B0 G1 A67 B3 P3 A0	8.00	6000.
5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH		
A67 B3 Gl A6 B0 P3 A0	1.00	800 .
6 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO PANBRAKE		
Al B0 G1 A32 B0 P1 A0	1.00	350 •
		0000
TOTAL	TMU	8330 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

86,170

File Description ? BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS Output to line-printer <Y or N> ? N

(39, 1)

RCT2RC.M36 FIT .W11

BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS WITH PAN BRAKE AT SHEETMETAL SHOP

OFG: 4 17-MAY-83 PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9

\* 16 GAUGE GALV. SHEETMETAL

- \* 30'X15' TO 25\*X20' RADIUS CORNERS 40'L \* WITH 5' RADIUS CORNERS
- \* KINK UP LAP ENDS ON PAN BRAKE

FITTER BEGINS AT PANBRAKE

1 POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS F 2

	Al BO G1 A6 BO P6 A0	2.00	250.
2	FASTEN NUT [JAWS] ON SHEETMETAL AT PANBRAKE 5		
	WRIST-STROKES USING WRENCH AT PANBRAKE AND ASIDE		
	Al BO G1 Al BO P3 Fl6 Al BO P1 AO	1.00	240 .
3	OPERATE PANBRAKE-LEVER PROCESS F 6		
	Al BO G1 M6 X96 IO AO	6.00	6240.
4	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110 .
5	MOVE CART WITH SHEETMETAL FROM PANBRAKE TO WORKTABLE		

A1 B0 G1 A54 B3 P1 A0 1.00

TOTAL TMU 7470 .

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

93,640

600 .

File Description ? ASSEMBLE RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT • W11 RCT2RC.M37

ASSEMBLE RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 16 GAUGE GLAV. SHEETMETAL
- \* 30'X15' TO 25'X20' RADIUS CORNERS 40'L
- \* WITH 5' RADIUS CORNERS

WORKTABLE F 2

WORKTABLE F 2

FITTER BEGINS AT WORKTABLE

1	PLACE	SHEETMETAL		L	FROM	CART	AT	WORKTABLE		$_{ m BLE}$	E TO WORK		TABLE		
	WITH	4	STEPS	F	2										
								_	^	~ 1		- 0		- O	

	WITH 4 STEPS F Z		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE		
	Al BO G1 Al BO P6 AO	1.00	90.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING	_,,,	
	VISEGRIPS AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (2)	1.00	140.
4	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3	_,,,	
	WRIST-STROKES USING CHUCKKEY AND ASIDE		
	Al BO G1 Al BO P3 F10 Al BO P1 AO	1.00	180.
5	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	Al BO G1 Al BO P6 AO	2.00	180.
6	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2	_,,,	
-	Al BO G1 M6 X6 IO AO	2.00	280 .
7	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT		

Al BO G1 Al

Al B0 G1 Al B0 P6 A0

Al B0 G1 M6 X3 I0 A0

B0 P6 A0

TOTAL TMU 1670.

2.00

2.00

2.00

180.

180.

220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

9 OPERATE RIVETGUN AT WORKTABLE PROCESS F 2

8 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT

File Description ? TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS utput to line-printer <Y or N> ? N

(39, 1)

• W11 RCT2RC.M38 FIT

TACK RADIUS CORNERS ON RECTANGULAR TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP OFG: 4 17-MAY-83

PER RECTANGULAR TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 9 \* 16 GAUGE GALV. SHEETMETAL

- \* 30'X15' TO 25\*X20' RADIUS CORNERS
- \* 40'L WITH 5' RADIUS CORNERS
- \* COMPLETE WELDING IN MWELD PROGRAM
- \* WELDING DONE IN WELD BOOTH AREA
- \* SEE RCT2RC.M39

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT  Al B0 G1 A54 B3 P1 A0	1.00	600.
2	POSITION SHEETMETAL FROM WELDOUT TO SHEETMETAL AT WELDOUT F 4	_,,,	
	Al BO G1 Al BO P6 AO	4.00	360.
3	GRIP SHEETMETAL AT WELDOUT USING CCLAMPS AT WELDOUT AND ASIDE PF 12 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (12)	1.00	640.
4	POSITION TACKWELDER TO SHEETMETAL AT WELDOUT F 24		
	Al BO G1 Al BO P6 AO	24.00	2160.
5	OPERATE TACKWELDER PROCESS F 24		
	Al BO G1 M6 X3 IO AO	24.00	2640.
6	HOVE SHEETMETAL2, CCLAMPS FROM WELDOUT TO WORKTABLE		
	Al B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

102310

7000.

TOTAL TMU

### File Description ? WELD RECTANGULAR TO RADIUS CORNERS

ASSEMBLY AT WELDTABLE WITH PARTIAL BEND (F 4)

14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4
Al BO G1 M1 XO IO Al
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 4

Output to line-minter <Y or N> ? N

Output to line-minter <y n="" or=""> ? N</y>		
( 39, 3) WELD ● W01 RCT2RC.M39  WELD RECTANGULAR TO RADIUS CORNERS WITH TIG-WELDER AT SET SHOP WELDING BOOTH  PER RECTANGULAR TO RADIUS CORNERS OFG: 4 14-JU  WELDING NASSCO SHEETMETAL SHAPE 9  * 16 GAUGE GALV. SHEETMETAL  * 30X15 TO 25X02 RADIUS CORNERS 40' LG  *WITH 5' RADIUS CORNERS  * WELDING DONE IN WELD AREA BOOTH  * GAS TUNGSTEN ARC WELDING  * WORK PERFORMED BY WELDOR  * FITTER TRANSPORTS SHEETMETAL  FITTER BEGINS AT WORKTABLE		L
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
AT WORKTABLE WITH 4 STEPS Al B0 G1 A6 B0 P3 A0	1.00	110.
2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE  • Al B0 G1 A131B3 P1 A0	1.00	1370.
3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO		
WELDTABLE WITH 4 STEPS A1 B0 G1 A6 B0 P3 A0	1.00	110.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 Ml X0 I0 A32	1.00	370.
5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
0 D Al B0 G1 Ml X0 I0 Al 6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1	1.00	40.
WRIST-TURN USING HAND  Al BO G1 Al BO P1 F3 AO BO PO AO	1.00	70.
7 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES Al B0 G1 M3 X0 I0 Al	1.00	60.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
A3 B3 G1 A1 B0 P6 A0 9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	4.00	560.
Al B0 G1 Ml X10 I0 A0 10 WELDOR POSITION WELDROD M WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE (F 4)	4.00	520.
Al BO G1 Al BO P6 AO	4.00	360.
11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4 Al B0 G1 Ml X0 I0 Al	4.00	160.
12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL		

Al BO G1 Al B6

Al B0 G1 M6 X81 IO A0

P6 A0 4.00

4.00

4.00

600 .

3960.

160.

## RCTERC M39

USING WIREBRUSH AT WELDTABLE AND ASIDE PF 40 ( 4 5 6 7

						- (			
	Al	B0 G1	(A1 B0	P1 C	l )A1	. B0 P1	A0 (40	1 1.00	1240.
16	REPLACE SHE	EETMETAL	ASSEMBLY	FROM W	ELDTA	EE TO C	ART AT		
	WELDTABLE	WITH 4	STEPS						
			Al	B0 G	1 A6	B0 P3	A0	1.00	110.
17	FITTER MOVE	E CART FI	ROM WELDTA	ABLE TO	WORKT	ABLE			
			Al	B0 G	1 Al3	1B0 P1	A0	1.00	1340.
								_, _,	
							TOTAL	ТМП	10740.
							IOIAH	11.10	TO/40.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? RIVET RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)

FIT ● W11 RCT2RC.M40

RIVET RECTANGULAR TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 16 GAUGE GALV. SHEETMETAL \* 30'X15' TO 25'X20' RADIUS CORNERS
- \* 40'L WITH 5' RAADIUS CORNERS
- \* SEAL RIVET HEADS AND SEAMS WITH SEALANT

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2						
	Al BO G1 A6 BO P6 A0	2.00	280.				
2	MARK RIVET HOLES FORM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )						
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (52)	1.00	2640.				
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 52						
	Al B0 G1 A3 B0 P6 A0	52.00	5720.				
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 52						
	Al BO G1 M6 X6 IO AO	52.00	7280.				
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT						
	WORKTABLE F 52						
_	Al BO G1 Al BO P6 AO	52.00	4680.				
6	POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 52						
	Al BO G1 Al BO P6 AO	52.00	4680.				
7	OPERATE RIVETGUN PROCESS F 52						
	Al BO G1 M6 X3 IO AO	52.00	5720.				
8	POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT						
	WORKTABLE F 52						
_	Al BO G1 Al BO P6 AO	52.00	4680.				
9	GRIP SEALANT TO SHEETHETAL AT WORKTABLE USING						
	CAULKINGGUN AND ASIDE F 52  Al BO G1 Al BO P3 C1 Al BO P1 AO	F0 00	1600				
1 0	Al B0 G1 Al B0 P3 C1 Al B0 P1 A0 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	52.00	4680.				
ΤU	AO BO GO AO BO PO TIO AO BO PO AO	1.00	100.				
	AU DU GU AU DU PU IIU AU DU PU AU	1.00	100.				

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

143,470

40460.

TOTAL TMU

MOSTS COMPUTER SYSTEMS Title and Method Specification Sheet Project/Assignment: Page JULE OUT SHEETMETAL FOR RECTANGLE to RADIUS CORNERS SPECIAL CONDITIONS / + KEYPOINTS TITLE ( • REQUIRED) SHEETMETAL · ACTIVITY: MARK X16 GAUGE GALV. 30 X15/525X20 RADIUS CORNERS 40 · OBJECT: SHECT METAL WHH 5" RADIUS COENERS □IN □ON □FOR \* MARK out with tenperte PRODUCT/EQUIPMENT: DATA UNIT TEMPORARY DELETE TOOL: AWL TO BE FILED FILE NAME/NO. YES NO • ☐ TO ☐AT WORK AREA LAYOUT SIZE/CAPACITY:\_ MOST ANALYSIS Ect. 2 E.C. M.O. · WORK AREA ORIGIN: 540P COMBINED SUB-OP. WORK AREA NUMBER: TITLE SHEET <u>PADIUS COLNER</u>PFG: · UNIT. PER REGANGLE . BEGINS: · OPERATOR: DATE FILED LOC. NO. DATA COORDINATO (If blank, use default beginning Operator and Location.) (SIMO) (PF) KEYWORD / METHOD DESCRIPTION Position template FROM WORKFABLE to SHEETMETAL POSIFION WEIGHTS FROM WORKTABLE 5 DIGITS USING AWL AT WORKFABLE & ASIDE P.F.-16 POSITION CPUNCH FLOM WORKFABLE WORKFABLE F-40 CPUNCH to TEMPLATE FROM TEMPLATE TO ON SHEEFMETAL AT WORKFABLE SIDIGHTS USVOLG I DENTIFICATION ON SHEETMETAL AT WORKFABLE DIMENSION ON SHEEFMETAL AT WORK FABLE AND ASIDE P.F.-G

MOST® COMP	Acnt. 39, 1 (3)						
Title and Method	Date 5-9-83						
MOSSCO File Description	Sign. YOUNG						
Cont.		Page /					
TITLE ( • REQUIRED)	SPECIAL CONDITIONS / * KEYPOINTS						
ACTIVITY:	N.A.S.S.C.O SI	SHAPE #9					
OBJECT:	<u> </u>						
☐IN ☐ON ☐FOR							
PRODUCT/EQUIPMENT:	0.71.1117	DELETE					
TOOL:	DATA UNIT TEMPORAL TO BE FILED FILE NAME/		1				
• TO AT	WORK AREA LAYOUT	广广	// 0 0				
• WORK AREA ORIGIN:	MOST ANALYSIS	Rcf. 2 R.C. #.	<i>30</i>				
WORK AREA NUMBER:	COMBINED SUB-OP.	•					
· UNIT: Per red. to R.C.   12150/m 3 >15/mes OFG:	TITLE SHEET						
• OPERATOR: • BEGINS:	DATE FILED	LOC. NO.	DATA COORDINATOR				
NO. KEYWORD / METHOD DESCRIPTION			SIMO (PF) F				
13 Position Steright EDGE FROM WOL	POSITION STELLENT EDGE FROM WORKTIBLE TO STEETMETAL AT						
WORKFABLE AND ASIDE P.F6							
14. MARK SHEEFMETAL FROM STRAIGHT.	4. MARK SHEEFMETAL FROM STRAIGHTEDGE AT WIRKTABLE 5 DIGITS						
AWL AT WORKTABLE AND ASIDE P.F.							
15 MARK CUT LINE ON SHEETMETAL AF							
USING REDPEN AT WORK FABLE AND							
	6 MARK CONSTRUCTION INFORMATION ON SHEETMETAL A						
I DIGIT USING BLACK PEN At WORKIN	BLE AND HOLD P.	F-32					
17 MARE IDENTIFICATION ON SHEETM	EtAL AT WORKFACE	LE / DIGIT					
USING BLACK PEN At WORKTABLE A	NO ASIDE PF	52					
18 PLACE SHEET METAL FROM WORKFABLE	r to CART At W.	ORKHBLE					
- Luth & Staps.							
- 19 Move CART FROM WORKTABLE to	SMALL SHEAR						
3							
3							
707							
Z V V	•						
Y							
3							
> 1							
: L							

### 20"x 12" to 16"x 8" RECFANGULAR to PADIUS CORNERS

FAB	36570	22 MIN.
MARK out	23000	13 M/N
WELD	39710	23.1111.
TOTAL TMU.	99280	60 MIN

utr	out to line-printer <y n="" or=""> ? N</y>		
( 3 FIT SHOP	MARK OUT RECTANGULAR TO RADIUS CORNERS WITH AWL AT SHEETM	ETAL	
	RECTANGULAR TO RADIUS CORNERS  NASSCO SHEETMETAL SHAPE 9  * 1# GAUGE GALV. SHEETMETAL  * 20'x12' TO 16'X8' RADIUS CORNER 30'L '4 WITH 2' RADIUS CORNERS  * MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE	-83	
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 Al B0 G1 A3 B0 P6 A0	2.00	220.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	2.00	
3	Al B0 G1 A6 B0 P6 A0  MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	6.00	840.
4	,	1.00	2920.
5	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 30 ( 4 5 6 7 )	0.00	2700.
6	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (30) REMOVE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 6		1240.
7	REMOVE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	6.00	540.
8	Al B0 G1 A6 B0 P1 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	2.00	180.
9	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (16) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2920.
10	MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	90.
11	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
1.0	STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (5)	1.00	1740.

USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (5) 1.00

290.

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT

WORKTABLE WITH 2 STEPS

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

Al BO G1 A3 BO P6 A0	1.00	110.
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT		
USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (5)	1.00	290.
15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS		
USING REOPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (5)	1 00	0.40
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	940.
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
ASIDE PF 32 ( 4 5 6 7 )		
Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (32)	1.00	1640.
17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1040.
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)	1.00	1640.
18 PLACE SHEETMETAL 2 FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F 2		
Al BO G1 A6 BO P3 A0	2.00	220 •
19 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO 14FT. SHEAR		
Al B0 G1 A81 B0 P1 A0	1.00	840.
	A ATT T	0000
TOTAL T	.VIU	23000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description? SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS File Description ?

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M51

SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS WITH  $14 \mathrm{FT}$ . SHEAR AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 11 GAUGE GALV. SHEETMETAL

\* 20'X12' TO 16'X3' RADIUS CORNERS 30'L

\* WITH 2' RADIUS CORNERS

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL2 FROM CART AT 14FT. SHEAR TO 14FT. SHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2		
	Al BO G1 Ml X3 IO AO	2.00	120.
3	POSITION SHEETMETAL2 FROM 14FT. SHEAR TO 14FT. SHEAR F 15		
	Al BO G1 Al BO P6 AO	15.00	1350.
4	PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 15		
	Al BO G1 Ml X3 IO AO	15.00	900.
5	REPLACE SHEETMETAL FROM 14FT. SHEAR TO CART AT 14FT. SHEAR WITH 4 STEPS		

Al BO G1 A6 BO P3 A0 1.00 110.
6 MOUE CART WITH SHEETMETAL2 FROM 14FT. SHEAR TO WORKTABLE
Al BO G1 A81 B3 P1 A0 1.00 870 e

TOTAL TMU 3630.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS
Output to line-Printer <Y or N> ? N

( 39, 1)

FIT .W11 RCT2RC.M52

CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH SABER-SAW AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 11 GAUGE GALV. SHEETMETAL

\* 20'X12' TO 16'X8' RADIUS CORNERS

\* 30'1 WITH 2' RADIUS CORNERS

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
2	Al B0 G1 A6 B0 P3 A0 MOVE SABER-SAW2 , SAW-BLADES2 FROM TOOLROOM TO WORKTABLE	1.00	110.
3	A96 B0 G1 A96 B3 P1 A0 FASTEN NUT [SAW BLADES] AT WORKTABLE 4 WRIST-TURNS	1.00	1970.
	USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF $4$ ( $4$ 5 $6$ $7$ )		
	Al B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (4)	1.00	600.
4	OPERATE SABER-SAW AT WORKTABLE PROCESS F 3  Al B0 G1 M6 X67 I0 A0	2 00	2250
5	Al B0 G1 M6 X67 I0 A0 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES	3.00	2250.
6	USING HAMMER AT-WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al BO G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	1160.
П	WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
1	MOUE CART WITH SHEETMETAL FROM WORKTABLE TO 14FTHYDROPRESSBRAKE	1 00	0.00
	Al B0 G1 A96 B0 P1 A0	1.00	990.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

16820

7190.

File Description ? BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS
Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M53

BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS WITH

14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 9

\* 11 GAUGE GALV. SHEETMETAL

\* 20'X12' TO 16'X8' RADIUS CORNERS

\* 30'L WITH 2' RADIUS CORNERS

\* KINK DOWN LAP ENDS

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM TO 14FTHYDROPRESSBRAKE WI	_	_	T 14	_	DROP:	RESS	BRAKE		
		Al	B0	G1	A3	в0	Р6	A0	2.00	220.
2	PUSH 14FTHYDROPESSBRAKE-FO	OOTF	PEDA:	L PR	OCES	SF.	2			
2	POSITION SHEETMETAL FROM	Al 145	B0 TUVUTI	G1	Ml	X24	IO F TO	A0	2.00	540.
J	14FTHYDROPRESSBRAKE F 40	TIL	11111	DICOI.	KEOO.	DIVAIV	<u>. 10</u>			
		Al	в0	G1	Al	В0	Р6	A0	40.00	3600.
4	PUSH 14FTHYDROPESSBRAKE-FO	OOTE	EDA:	L PR	OCES	SF	40			
		Al	В0	G1	Ml	X24	ΙO	A0	40.00	10800.
5	REPLACE SHEETMETAL FROM 1 14FTHYDROPRESSBRAKE WITH	_	HYDI TEP	-	ESSBI	RAKE	TO	CART A	Γ	
	,, _ ,	ĀĪ ~	В0	G1	A6	в0	Р3	A0	1.00	110 .
6	MOUE CART WITH SHEETMETAL	FR	OM 1	14FT	HYDR	OPRES	SSBR	AKE TO		
	ROLLER									
		Al	В0	G1	A54	В0	Ρ1	A0	1.00	570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

26660

15840.

Please input file <RCT2RC.M54> ?

File Description ? FORM RADIUS FOR COLLAR FOR RECT. TO RADIUS CORNERS File Description ?

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 RCT2RC.M54

FORM RADIUS FOR COLLAR ON RECTANGULAR TO RADIUS CORNERS WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER RECTANGULAR TO RADIUS CORNERS OFG: 4 18-MAY-83

NASSCO SHEETMETAL SHAPE 9

- \* 11 GAUGE GALV. SHEETMETAL
- \* 20'X12' TO 16'X8' RADIUS CORNERS 30'L
- \* WITH 2' RADIUS CORNERS
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE RCT2RC.M55
- \* COMPLETE WITH MWELD

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND F 2		
	Al BO G1 Al BO P1 F6 AO BO PO AO	2.00	200.
3	PUSH ROLLER-BUTTON PROCESS F 8		
	Al BO G1 Ml X96 IO AO	8.00	7920.
4	PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER WITH 2 STEPS F 8		
	Al BO G1 A3 BO P3 A0	8.00	640.
5	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 4		
	Al BO G1 A6 BO P3 A0	4.00	440.
6	MOUE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE		
	Al BO G1 A54 B3 P1 AO	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

36,570

9910.

#### File Description ? WELD RECTANGULAR TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

WELDTABLE WITH 4 STEPS F 2

Outp	out to line-printer <y n="" or=""> ? N</y>		
WELD SHEE	RCT2RC.M55  WELD RECTANGULAR TO RADIUS CORNERS WITH ARC (STICK) WELD RECTANGULAR TO RADIUS CORNERS  WELDING NASSCO SHEETMETAL SHAPE 9  * 11 GAUGE GALV. SHEETMETAL  * 20'X12' TO 16'X8' RADIUS CORNERS 30' L		
	*WITH 2' RADIUS CORNERS FITTER BEGINS AT WORKTABLE		
	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
	AT WORKTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOUE CART FROM WORKTABJ%ATO WELDTABLE		
3	Al BO G1 A131B3 P1 AO PLACE SHEETMETAL FROM CART AT WELDTABLE TO WELDTABLE	1.00	1370.
Δ	WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0  WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	2.00	220 .
1	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS A3 B0 G1 Ml X0 I0 A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
6	Al BO G1 M3 XO IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
-	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6  A3 B3 G1 A1 B0 P6 A0	6.00	840.
	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6 Al BO Gl Ml X10 IO AO	6.00	780.
8	WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1 WRIST-TURN USING HAND F 18 Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0	18.00	1260.
9	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 18  Al B0 G1 M1 X0 I0 Al	18.00	720.
10	WELDOR POSITION STINGER-BUTTON1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 18	10.00	720:
1 1		13.00	1620.
	14 Al B0 G1 M6 X173I0 A0	14.00	25340.
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 18  Al B0 G1 Ml X0 I0 Al	18.00	720 .
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 7 ( 4 5 6 7 )		
14	Al B0 G1 (A1 B0 PO L16 )A1 B0 P1 A0 (7) WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 28 ( 4 5 6 7 )	1.00	1230.
15	Al B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (28) REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2	1.00	3400 .

					Al	В0	G1	Аб	В0	P 3	A0	2	.00	220.
16	FITTER	MOUE	CART	FROM				WORKT Al3			A0	1	.00	1340.

TOTAL TMU 39710.

File Description ? WELD RECTANGULAR TO RADIUS CORNERS
Output to line-printer <Y or N> ?

# SHEET METAL SHAPE #10

# 10×6"+08"×6"×10" LG. FLAT OVAL

FAB.	68,230	41 MIN.
MARK OUT	30,260	_18 MIN.
WELD	17570	10 MIN.
TOTAL	116,060	69 MIN.

### File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS utput to line-printer <Y or N> ? N

FIT SHE	9, 1) .W11 F02RC . M01 MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH ETMETAL SHOP FLATOVAL TO RADIUS CORNERS NASSCO SHEETMETAL SHAPE 10 * 22 GAUGE GALV. SHEETMETAL * 10'X6' R.C. TO 8'X6' F.O. 10'L * MARK OUT FLAT OVAL WITH TEMPLATE * MARK OUT R.C. & COLLAR WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2	2 00	200
2	Al B0 G1 A6 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 4	2.00	280.
3	Al B0 G1 A6 B0 P6 A0 MARK SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )	4.00	560.
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE	1.00	1840.
5	F 64  Al B0 G1 A1 B0 P6 A0  FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING	64.00	5760.
6	HAMMER AT WORKTABLE AND ASIDE PF 64 ( 4 5 6 7 )  Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (64)  REFLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	1.00	2600.
	WITH 4 STEPS F 4  Al B0 G1 A6 B0 P3 A0	4.00	440.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	1.00	<b>110.</b>
8	Al B0 G1 A6 B0 P3 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	220.
9	USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R16 > A1 B0 P1 A0 (10) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1840.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 ( $4$ 5 $6$ $7$ )		
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (86) MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7 )	1.00	4340,
11	ASIDE PF 52 ( 4 5 6 7 )  Al B0 G1 (Al B0 P1 R3 )A1 B0 Pl A0 (53)  MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
12	STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 M32 )A1 BO P1 A0 (3) MARK DIMENSIONS ON SHEETMETAL AT WORKTABKE 1 DIGIT	1.00	1060.
	USING-AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R3 )A1 BO P1 A0 (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	340.
	WORKTABLE WITH 3 STEPS F 5	F 00	700 6
	Al B0 G1 A6 B0 P6 A0	5.00	700.5

	MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS		
14	USING AWL AT WORKTABLE AND ASIDE PF 5 (4 5 6 7 )		
	Al BO G1 (Al BO P1 R16 )Al BO P1 AO (5)	1.00	940 .
	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
15	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 86 ( 4 5 6 7 )		
)	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (86)	1.00	4340.
16	MARK IDENTIFICATION ON SHEETMETAL AT WORKTARLE 1 DIGIT		
	USING BLACKPEN AT WORKTABLE AND ASIDE PF 28 ( 4 5 6 7		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (28)	1.00	1440.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
18	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR	2.00	220.
10	Al BO G1 A67 BO P1 A0	1.00	700.
	AI BU GI AU BU FI AU	1.00	700.
	TOTAL T	ſU	30260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

18 1411

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS utput to line-Printer <Y or N> ? N

(39, 1)

F02RC.M02 FIT .W11

SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

OFG: 4 05-MAY-83 PER FLAT OVAL TO RADIUS OCRNERS

NASSCO SHEETMETAL SHAPE 10

\* 22 GAUGE GALV. SHEETMETAL \* 10'X6'R.C. TO 8'X6'F.O. 10' L

\* SHEAR 1 1/2' STRIPS FOR CORNERS

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT	SMALLSHEAR '	TO		
	SMALLSHEAR WITH 4 STEPS F 2				
	Al BO G	1 A6 B0	P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCES	SS F 2			
	Al BO G	1 Ml X6	IO AO	2.00	180.
3	POSITION SHEETMETAL FROM SMALLSHEA	AR TO SMALL	SHEAR WITH		
	STEPS F 14				
	Al BO G	1 A3 B0 :	P6 A0	14.00	1540.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCES	SS F 14			
	Al DO G	Ml X6	IO AO	14.00	1260.
5	REPLACE SHEETMETAL FROM SMALLSHEAR	R TO CART A	T		
	SMALLSHEAR WITH 10 STEPS F 2				
	Al BO GI	. Al6 B0	P3 A0	2.00	420.
6	MOUE CART WITH SHEETMETAL FROM SWA	ALLSHEAR TO	WORKTABLE		
	Al BO G	L A67 B3	P1 A0	1.00	730.

TOTAL TMU 4410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

700 # 4410=5110

Invalid File Name.

Please input **file** <R02RC>.M03 > ?

File Description ? SHEAR RADIUS FLAT OVAL TO RADIUS CORNERS
Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 RO2RC .M03

SHEAR SHEETMETAL FOR RADIUS FLAT OVAL TO RADIUS CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

\* 22 GAUGE GALV. SHEETMETAL

\* 10'X6' TO 8'X6' R.C./F.O. 10'L

7 MOVE CART FROM WORKTABLE TO LAPOUT

FITTER BEGINS AT WORKTABLE

1	PLACE	S	HEETME	ΤA	L	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	$\mathtt{WITH}$	4	STEPS	F	2						

Al BO G1 A6 BO P3 A0	2.00	220.
2 MOVE UNI-SHEAR2 FROM TOOLROOM TO WORKTABLE		
A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3 OPERATE UNISHEAR PROCESS F 10		
Al BO G1 M6 X173IO AO	10.00	18100.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
SNIPES AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P3 C3 )A0 B0 P1 A0 (8)	1.00	600.
5 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTABLE 3		
STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4		
5 6 7 )		
Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20)	1.00	1440.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS		
Al BO G1 A6 BO P3 A0	1.00	110.

Al B0 G1 A54 B0 P1 A0

TOTAL TMU 23010.

1.00

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

28120

### File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS

( 39, 1)

FIT .W11 F02RC.M04

FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS WITH LAPOUT MACHINE AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

Output to line-Printer <Y or N> ? N

\* 22 GAUGE GALV. SHEETMETAL

\* 10'X6' TO 8'X6'R.C./F.O. 10'L

FITTER BEGINS AT LAPOUT

1	POSITION	SHEETMETAL	FROM	CART	' AT	LA:	POUT	TO	LAPO	UT WITH	
	4 STEPS	F 2									
				Al	В0	G1	Аб	В0	Р6	A0	2.00
2	OPERATE :	LAPOUT-SWITC	H PRO	CESS	F 2						

Al B0 G1 M6 X16 I0 A0 3 PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS F 2

A6 B0 G1 M1 X0 I3 A0 2.00 4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2

Al B0 G1 A6 B0 P3 A0 2.00 220. 5 HOVE CART FROM LAPOUT TO HAND-ROLLER AT WORKBENCH Al B0 G1 A24 B3 P1 A1 1.00 300.

TOTAL TMU 1500,

0

2.00

280.

480.

220.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>?

29620

#### File Description ? ROLL UP FLAT OVAL AND RADIUS CORNERS

utput to line-printer <Y or N> ? N

(39, 1)

FIT .W11 F02RC .MO5

FORM SHEETMETAL FOR FLAT OVAL AND RADIUS CORNERS WITH HAND ROLLER AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 10

- \* 22 GAUGE GALV. SHEETMETAL
- \* 10'X6' TO 8'X6' RADIUS CORNER TO
- \* FLAT OVAL 10' L

FITTER BEGINS AT WORKBENCH

1	POSITION SHEETMETAL FROM CART AT WORKBENCH TO WORKBENCH WITH 4 STEPS F 6		
	Al B0 G1 A6 B0 P6 A0	6.00	840.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT		
	WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 10		
	Al B0 G1 Al B0 P1 F6 A0 B0 P0 A0	10.00	1000.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS F 12		
	Al B0 G1 M6 X0 I0 A0	12.00	960.
4	REPLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO		
	CART AT WORKBENCH WITH 4 STEPS F 6		
	Al BO G1 A6 BO P3 A0	6.00	660.
5	MOVE CART WITH SHEETMETAL FROM WORKBENCH TO LEAFBRAKE		
	Al B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU 3590,

OFG: 4 OS-MAY-83

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

FIT SH	9, 1) .W11 F02RC.M06 BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT EETMETAL SHOP FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83 NASSCO SHEETMETAL SHAPE 10 * 22 GAUGE GALV. SHEETMETAL * 10'X6' TO 8'X6' RADIUS CORNERS TO * FLAT OVAL 10'L FITTER BEGINS AT WORKTABLE	
1	MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE Al BO G1 A81 BO P1 A0 1.00 840.	
2	GRIP ADJUSTMENT ROD ON LEAFBRAKE USING VISEGRIPS AND	
3	ASIDE  Al B0 G1 Al B0 P3 C1 A1 B0 P1 A0 1.00 90.  POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO  LEAFBRAKE WITH 4 STEPS F 2	
4	Al BO G1 A6 BO P6 AO 2.00 280. OPERATE LEAFBRAKE-LEVER PROCESS F 2	
_	Al BO G1 M6 X16 IO AO 2.00 480.	
5	POSITION SHEETMETAL 2 FROM LEAFBRAKE TO LEAFBRAKE F 5437	
6	Al BO G1 Al BO P6 AO 54.00 4860.  OPERATE LEAFBRAKE-LEVER PROCESS F 54	
O	Al BO G1 M6 X16 IO AO 54.00 12960.	
7	REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P3 A0 2.00 220.	
8	MOVE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE TO WORKTABLE.	
	Al BO G1 A81 B3 P1 A0 1.00 870.	

TOTAL TMU 20600.

Type D, EM, CT, EX, T, W <or H for help> ?

#### File Description ? ASSEMBLE FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

- 1	_	$\neg$	_ ^	-	١.,	١.
- 1		<	9	. 1		١.
١		J			L.	,

FIT .W11 F02RC.M07

ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH

RIVET GUN AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 06-MAY-83

NASSCO SHEETMETAL SHAPE 10

\* 22 GAUGE GALV. SHEETMETAL

- \* 10'X6' TO RADIUS CORNERS TO
- \* FLAT OVAL 10' L
- \* LEAVE-TOP LOOSE UNTIL --
- I RADIUS FOR FLAT OVAL IS WELDED

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE		
	WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	_,,,	
	Al BO G1 A6 B0 P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING		

	VISEGE	RIPS A	CW T	RKTI	ABLE	AND	ASID	E F	2					
		Al	в0	G1	Al	в0	Р3	Cl	A1	в0	Ρ1	A0	2.00	180.
4	FASTEN	5-32D	RILL	BIT	TO I	DRILI	LMOTO	R AT	' WOR	KTAB	LE 3	}		
	TIDITOR	THE STORES	TTOT	370	3TTTT	F T F T T T F	7 CC T.T.	OD 77.	13 DT T	777	707			

WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE

Al B0 G1 Al B0 P3 F6 Al B0 P1 A0 1.00 140.

5 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE F 2

		Al	В0	G1	A1	В0	Pб	A0	2.00	180.
6	OPERATE DRILLMOTOR PROCE	SS F	2							
		Al	в0	G1	Мб	Хб	ΙO	A0	2.00	280.
7	POSITION RIVET FROM WORK	TABL	Е ТО	SHE	ETME'	TAL	ΑT			

WORKTABLE F 2

Al B0 Gl Al B0 P6 A0 2.00 180.

a OPERATE RIVETGUN PROCESS F 2
Al B0 G1 M6 X3 I0 A0 2.00 220.

TOTAL TMU 1540.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? TACK WELD FLAT OVAL TO RADIUS CORNERS

Ouput to line-Printer <Y or N> ? N

(39, 1)

FIT ● W11 F02RC.MO8

WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83

NASSCO SHEETMETAL SHAPE 10

- \* 22 GAUGE GALV. SHEETMETAL
- \* 10'X6'TO 8'X6' RADIUS CORNERS TO
- \* FLAT OVAL 10'L
- \* HOLD R. CORNERS TO ASSEMBLY WITH CCLAMPS
- \* MOUE TO WELD AREA ON NEXT ANALYSIS
- \* WELD R. CORNERS & FLAT OVAL TO ASSEMBLY

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT		
	Al B0 G1 A54 B3 P1 A0	1.00	600.
2	POSITION SHEETMETAL FROM TABLE AT WELDOUT TO		
	SHEETMETAL AT WELDOUT WITH 3 STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL AT WELDOUT USING		
	CCLAMPS AT WELDOUT AND ASIDE PF 20 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20)	1.00	1040.
4	OPERATE TACKWELDER PROCESS F 28		
	A1 B0 G1 M6 X3 I0 A0	28.00	3080.
5	MOVE CCLAMPS , SHEETMETAL FROM WELDOUT TO WORKTABLE		
	Al B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

60,810

5460.

#### File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 F02RC

F02RC.M09

RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL

FER FLAT OVAL TO RADIUS CORNERS

OFG: 4 01-JUL-83

TOTAL TMU

- NASSCO SHEETMETAL SHAPE 10
- \* 22 GAUGE GALV. SHEETMETAL
- \* 10'X6' RADIUS CORNERS TO 8'X6' FLAT OVAL
- \* COMPLETE RIVETING AFTER FLAT OVAL 10'LG
- \* RADIUS AND RADIUS CORNERS ARE WELDED

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2  Al BO G1 A3 BO P6 A0	2.00	2 2 0 .
2	HARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF $1\ 4\ (\ 4\ 5\ 6\ 7\ )$		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (14)	1.00	740.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 3 STEPS F 14		
	Al BO G1 A6 BO P6 A0	14.00	1960.
4	OPERATE DRILLMOTOR PROCESS F 14		
	A1 B0 G1 M6 X6 I0 A0	14.00	1960.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 14		
	Al BO G1 A1 BO P6 A0	14.00	1260.
6	OPERATE RIVETGUN PROCESS F 14		
	Al BO G1 M6 X3 IO AO	14.00	1540.
7	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING		
	CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (8)	1.00	440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

68,930

8120.

#### File Description ? WELD FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

WELD	9, 3)  • W01  F02RC .M10  WELD FLAT OVAL TO RADIUS CORNERS WITH TIG-WELDER AT SHEE  • WELDING BOOTH  FLAT OVAL TO RADIUS CORNERS  WELDING NASSCO SHEETMETAL SHAPE 10  * 22 GAUGE GALV, SHEETMETAL  * 10X6 RADIUS CORNERS TO 8X6 FLAT-  * -OVAL 10' LG  * WELDING DONE IN WELD AREA BOOTH  * GAS TUNGSTEN ARC WELDING  * WELDOR PERFORMS WORK  * FITTER TRANSPORTS SHEETMETAL  FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
	AT WORKTABLE WITH 4 STEPS  Al BO Gl A6 BO P3 A0	1.00	110.
	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE  Al BO Gl Al3lB3 Pl A0  PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
A	WELDTABLE WITH 4 STEPS  Al BO Gl A6 BO P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	1.00	110.
	WELDOK FUSH FOWER SUPFLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH, 16 STEPS A3 BO Gl Ml X0 IO A32 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES	1.00	370.
6	TO ON AT WELDMACHINES  Al BO Gl Ml X0 IO Al WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1	1.00	40.
	WRIST-TURN USING HAND Al BO Gl Al BO Pl F3 A0 BO PO A0	1.00	70.
7	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES  Al BO Gl M3 X0 IO Al	1.00	60.
8	Al BO Gl M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY' CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 6	1.00	00.
۵	A3 B3 G1 A1 BO P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 6	6.00	840.
	Al BO Gl Ml X10 IO AO WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	6.00	780.
	ASSEMBLY AT WELDTABLE F 6 Al BO Gl Al BO P6 A0	6.00	540.
11	PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 6 Al BO Gl Ml X0 IO Al	6.00	240.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 6		
13	Al BO Gl Al B6 P6 A0 OPERATE WELD STINGER-BUTTON1 PROCESS F/9	6.00	900. <b>20/0</b>
	'Al BO Gl M6 x81 IO AO PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 6	6.00	5340.
	Al BO Gl Ml X0 IO Al WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE WARM-STROKE	6.00	240.
	) <u>_</u>		

FOZRE MIC

USING WIREBRUSH	H AT WELDTABLI	AND ASIDE PF_	80	4567
-----------------	----------------	---------------	----	------

OSING MIKEPKOSH AT MEDDIADDE AND ASIDE II.	•	المناجية
Al BO Gl (Al BO Pl Cl) A1 BO Pl A0 (80) 16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT	1.00	2440.
WELDTABLE WITH 4 STEPS		*
Al BO Gl A6 BO P3 A0 17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE	1.00	110.
Al BO Gl Al31BO Pl AO	1.00	1340.
TOTAL TM	U	14900.
		1.7570

TYPE D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for hel> ?-

SHEET METAL SHAPE 10

# 20 x 12 to 16 x 12 x 30" 16 F/H OVAL To Riglos Can

FAB.	76,090	46. MIN
MARK OUT	31,360	18 MIN
WELD	27290	16 MIN
· TOTAL	134,740	81 MIN

#### File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

output to line printer of or we.		
( 39, 1)  FIT .Wll F02RC .M30  MARK OUT SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WIT	TH <b>AWL</b> AT	
SHEETMETAL SHOP PER FLAT OVAL TO RADIUS CORNERS NASSCO SHEETMETAL SHAPE 10 * 18 GAUGE GALV. SHEETMETAL * 20'X12'T'X12' FLAT OVAL TO * RADIUS CORNERS 30'L * MARK OUT CORNERS WITHOUT TEMPLATE * MARK OUT FLAT OVAL WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE		
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 2 Al BO Gl A6 BO P6 A0	2.00	280.
2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 4 STEPS F 4	2.00	200.
Al BO Gl A6 BO P6 A0  3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	4.00	560.
Al BO Gl (Al BO Pl R1-6) Al BO Pl A0 (20) 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE. WITH 2 STEPS F 64	1.00	3640 .
Al BO Gl A3 BO P6 A0 5 FASTEN CFUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 64 ( 4 5 6 7 )		
Al BO Gl (A1 BO PO F3 ) A1 BO F1 A0 (64) 6 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 4	1.00	2600.
Al BO Gl A6 BO P3 A0 7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	4.00	440 .
Al BO Gl A6 BO P3 A0 8 HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	220 .
USING REDPEN AT WORKTABLE.AND ASIDE PF 10 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16 )A1 BO Fl AO (10)  9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7 )	1.00	1840.
Al BO. Gl (Al BO Fl R3 ) Al BO Pl AO (48)  10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	I.00	2440.
Al BO Gl (Al BO Fl R3) Al BO Pl AO (52) 11 MEASURE DIMENSION ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 3	1.00	2640.
Al BO Gl Al BO Pl M32 Al BO Pl A0 12 MARK DIMENSION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	3.00	1140,
AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R3 ) A1 BO Pl A0 (6)	1.00	340.

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

#### tOCKE MOU

WORKTABLE WITH 3 STEPS F 5		
Al BO Gl A6 BO P6 A0	5.00	700 •
14 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS		
USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )	1 00	0.40
Al BO Gl (Al BO Pl R16) A1 BO Pl A0 (5) 15 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	940 •
USING REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )		
Al BO Gl (Al BO Pl R16 )Al BO Pl A0 (5)	1.00	940.
16 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 40 ( 4 5		
67) Al BO Gl (Al BO Pl R3 Al BO Pl A0 (40)	1.00	2040 .
Al BO Gl (Al BO Pl R3 Al BO Pl A0 (40)  17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	ZU40 .
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
Al BO Gl (Al BO Fl R3 )Al BO Fl A0 (52)	1.00	2640 .
18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F 2  Al BO Gl A6 BO F3 A0	2.00	220 •
19 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR	2.00	220 •
Al BO Gl A67 BO Pl A0	1.00	700.
TOTAL TIME	TT	21260
TOTAL TM	U	31360.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?'

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS  $\begin{tabular}{ll} \hline \uppercolsep. & \upolsep. & \up$ 

PER	39 1) .Wll F02RC .M31 SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH LL 8FT, SHEAR AT SHEETMETAL SHOP FLAT OVAL TO RADIUS CORNERS OFG: 4 01-JUL-83 NASSCO SHEETMETAL SHAPE 10 * 18 GAUGE GALV.SHEETMETAL * 20'X12' TO 16.X12' FLAT OVAL TO * RADIUS CORNERS 30'L FITTER BEGINS AT SHALLSHEAR	
1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	
		30.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2  Al BO Gl Ml X6 IO A0 2.00 18	•
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR WITH  4 STEPS F 14	0
	Al HO Gl A6 BO F6 A0 14.00 196	50.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14	c 0
5	Al BO Gl Ml X6 IO A0 14.00 126 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT	50.
J	SMALLSHEAR WITH 10 STEPS F 2	
	Al BO Gl Al6 BO P3 A0 2.00 42	20.
6	MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE	
	Al B0 Gl A67 B3 Pl A0 1.00 73	30.
	TOTAL TMU 483	30.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

4830

File Description ? SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS output to line-printer <Y or N> ? N

(	39	1)
다고기	7	TAT 7

F02RC .M32 .Wll

SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH UNI-SHEAR-AT SHEETMETAL SHOP OFG: 4 09-MAY-83

PER FLAT OVAL TO RADIUS CORNERS

NASSCO SHEETMETAL SHAPE 10 \* 18 GAUGE GALv. SHEETMETAL

- \* 20.X12' TO lb'X12' FLAT OVAL
- \* RADIUS CORNERS 30'L

FITTER BEGINS AT WORKTABLE

Τ	PLACE	S	HEETIME	ΉAΤ	L	FROM-CART	A'I'	W(	ORKT.	ABLE	TO	WORK	TABLE	
	${\tt WITH}$	4	STEPS	F	2									
						7. 7	D	$\cap$	CT	176	$D \cap$	כת	7\ ()	

	Al BO GI 'A6 BO P3 A0	2.00	220•
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	<i>A 9 6</i> B O G l A96 B3 Fl A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 10		
	——————————————————————————————————————	10.00	18100.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	HI BU UI TAI BO P3 C3 A1 BO P1 A0 (8)	1.00	600.
5	FASTEN BLCKPEN CURNERS -UN SHEET METAL AT WORKTABLE 5.		
	(STRIKESUSING NAMER AT WORKTABLE AND ASIDE PF 20 ( 4		
	-5 - 6-7)		
	A1 BO G1 (A1 BO FO P6 )A1 BO P1 AO(20)1.	0 0	1440
6	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		

0. 6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

Al BO Gl A6 BO P3 A0 1.00 110. 7 MOVE CART'WITH SHEETMETAL FROM WORKTABLE TO LAPOUT Al BO Gl A54 BO Pl A0 1.00 570.

TOTAL TMU 23010.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27840

File Description ? FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS
Output to line-printer <Y or N> ? N

(39, 1)

FIT .Wll F02RC . M33

FORM.... OVAL TO RADIUS CORNERS' WITH LAPOUT MACHINE

### TER FEAT UVAL TU NAUTUS CURNERS

NA53LU SHEEIMETAL 1V

\* 18 GAUGE GALV. SHEETMETAL \* 20'X12' TO 16'X12' FLAT OVAL'

\* RADIUS CORNERS 30.L

FITTER BEGINS AT LAPOUT

1	POSITION	SHEETMETAL	2	FROM	CART	ΑT	LAPOUT	TO	LAPOUT	WITH
	4 STEDS	F 4								

4 STEPS F 4		
Al BO Gl A6 BO P6 A0	4.00	560.
2 PUSH LAPOUT-SWITCH PROCESS F 2		
-Al BO Gl Ml X16 IO AO	2.00	380.
3 PUSH AND GUIDE SHEETMETAL 2 THROUGH LAPOUT WITH 3 STEP'S F 2		
A6 BO Gl Ml X0 13 A0	2.00	220.
4 REPLACE SHEETMETAL FROM LAPOUT TO CART AT LAPOUT WITH		
4 STEFS F 4		
Al BO Gl A6 BO P3 A0	4.00	440.
5 MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO HANDROLLER AT		
WORKBENCH		
Al 80 Gl A24 B3 Pl AO	1.00	300 .

TOTAL TMU 1900.

טרט∔ 4 טארחאז-83 י

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM RADIUS ON COLLARS FOR F.O TO R.C.'ELLO
OUTPUT to line-Preinter <Y or N> ? N

(399,1)

'FIT ● Wll' F02RC .M34

FROM RADIUS ON CULLARS FOR FLAT OVAL TO RADIUS CORNERS WITH MANU RULLER AT SHEETMETAL SHUF
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 09-MAY-83

NASSCO SHEETMETAL SHAPE 10

\* 18 GAUGE GALU, SHEETMETAL

\* 20'X12'T016FLAT OVAL TO RAD. CORNERS

FITTER BEGINS AT WORKBENCH

1. 1. S. H. E. T. H. E. T. A. L. 2. FROM CART AT WORKBENCH TO-		
manu ruller <b>at workebench with 4 steps '5'</b> Al BO Gl A6 BO P6 AO	6.00	840.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT	0.00	010.
WORKBENCH 3 SPINS USING FINGERS F 12		
Al BO Gl Al BO Pl F6 AO BO PO AO	12.00	1200.
3 CRANK HAND-ROLLER AT WORKBENCH 3.REUS USING HAND F 12		
Al BO Gl M6 X0 IO A0	12.00	960.
4 REFLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO		
CART AT WORKBENCH WITH 4 STEPS F 6		
Al BO Gl A6 BO P3 A0	6.00	660.'
5 MOVE CART WITH SHEETMETAL FROM WORKBENCH TO LEAFBRAKE		
Al BO Gl A10 BO Pl A0	1.00	130.
TOTAL	TMU	3790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS
Output to line-Printer <Y or N> ? N

B9, 1)  ,Wll  F02RC ,M35  BEND 'RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT SETMETAL SHOP  FLAT OVAL TO RADIUS CORNERS  NASSCO SHEETMETAL SHAPE 10  * 18 GAUGE GLAV. SHEETMETAL  * 20X12T016X12 FLAT OVAL TO RADIUS CORNERS  FITTER BEGINS AT WORKTABLE	
MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE	
Al BO Gl A81 BO Pl A0 1.00 GRIP ADJUSTMENT ROD ON LEAFBRAKE AT LEAFERAKE USING UISEGRIPS AT LEAFBRAKE AND ASIDE	840.
Al BO Gl Al BO P3 Cl Al RO Pl A0 1.00	90.
Al BO Gl A6 BO P6 A0 2.00	280.
OPERATE LEAFBRAKE-LEVER PROCESS F 2	400
POSITION SHEETMETAL 2 FROM LEAFERAKE TO LEAFBRAKE F 74	480.
Al BO Gl Al BO P6 A0 74.00	6660.
OPERATE LEAFBRAKE-LEVER PROCESS F 74	
112 20 02 110 1120 20 110	17760.
WITH 4 STEPS F 2	
	220.
	870.
TOTAL TMU	27200.
	BEND 'RADIUS ON FLAT OVAL TO RADIUS CORNERS WITH LEAFBRAKE AT ETMETAL SHOP  FLAT OVAL TO RADIUS CORNERS  NASSCO SHEETMETAL SHAPE 10  * 18 GAUGE GLAV. SHEETMETAL  * 20X12TO16X12 FLAT OVAL TO RADIUS CORNERS  FITTER BEGINS AT WORKTABLE  MOVE VISEGRIPS FROM WORKTABLE TO LEAFBRAKE  Al BO Gl A81 BO Pl A0 1.00  GRIP ADJUSTMENT ROD ON LEAFBRAKE AT LEAFERAKE USING  UISEGRIPS AT LEAFBRAKE AND ASIDE  Al BO Gl Al BO P3 Cl Al RO Pl A0 1.00  POSITION SHEETMETAL FROM CART AT LEAFERAKE TO  LEAFBRAK WITH 4 STEPS F 2  Al BO Gl A6 BO P6 A0 2.00  OPERATE LEAFBRAKE-LEVER PROCESS F 2  Al BO Gl A6 BO P6 A0 74.00  POSITION SHEETMETAL 2 FROM LEAFBRAKE TO LEAFBRAKE F 74  Al BO Gl Al BO P6 A0 74.00  OPERATE LEAFBRAKE-LEVER PROCESS F 74  Al BO Gl A6 BO P3 A0 74.00  REFLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE  WITH 4 STEPS F 2  Al BO Gl A6 BO P3 A0 2.00  MOUE CART WITH SHEETMETAL AND VISEGRIPS FROM LEAFBRAKE  TO WORKTABLE  Al BO Gl A81 B3 Pl A0 1.00

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?:

## File Description ? ASSEMBLE FLAT OVAL TO RADIUS CORNERS Output to line-Printer <Y or N) ? N

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?-

	,1) .Wll FO2RC .M36 ASSEMBLE SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH ET GUN AT SHEETMETAL SHOP FLAT OVAL TO RADIUS CORNERS OFG: 4 Ol-JU NASSCO SHEETMETAL SHAPE 10 * 18 GAUGE GALV. SHEETMETAL * 20X12T016X12 FLAT OVAL TO * RADIUS CORNERS 30'L FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al BO Gl A6 B0 P3 A0 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTARLE WITH 4 STEPS F 2	2.00	220.
3	Al BO Gl A6 BO P6 A0 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE F 2	2.00	280.
4	Al BO Gl Al BO P3 Cl Al BO P1 AO FASTEN 5-32DRILLBIT FROM WORKTABLE TO DRILLMOTOR WITH 3 WRIST-TURNS USING CHUCKKEY AND ASIDE	2.00	180.
5	Al BO Gl Al BO P3 F6 Al BO P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	140.
_	Al BO Gl Al BO P6 AO	2.00	180.
	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2  Al BO Gl M6 X6 IO A0	2.00	230.
7	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
8	Al BO Gl Al BO P6 AO OPERATE RIVETGUN AT WORKTABLE PROCESS F 2	2.00	180.
	Al BO Gl M6 X3 IO AO	2.00	220.
	TOTAL TM	IU	1680.

File Description ? TACK WELD FLAT OVAL TO RADIUS CORNERS output to line-printer <Y or N> ? N

(39,1)

F02RC .M37 FIT .Wll

TACK WELD SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH TACK WELDER AT SHEETMETAL SHOP OFG: 4 01-JUL-83

PER FLAT OVAL TO RADIUS CORNERS NASSCO SHEETMETAL SHAPE 10

\* 18 GAUGE GALV. SHEETMETAL

\* 20'X12' TO 16.X12' TO

\* RADIUS CORNERS 30'L

\* HOLD. CORNERS AND FLAT OVAL COLLAR TO--

\* ASSEMBLY WITH VISEGRIPS

\* WELD ON F02RC.M38 AT WELD AREA

FITTER BEGINS AT WORKTABLE

1	MOVE CCLAMPS , SHEETMETAL FROM WORKTABLE TO WELDOUT  Al BO Gl A54 B3 Pl A0	1.00	600.
2	POSITION SHEETMETAL FROM TABLE AT WELDOUT TO	1.00	000.
	SHEETMETAL AT WELDOUT WITH 3 STEPS		
	Al BO Gl A6 BO P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING		
	CCLAMPS AT WELDOUT AND ASIDE PF 20 ( 4 5 6 7 )		
	Al BO Gl (Al BO P3 Cl) A1 BO Pl A0 (20)	1.00	1040.
4	OPERATE TACKWELDER AT WELDOUT PROCESS F 28		
	Al BO Gl M6 X3 IO AO	28.00	3080.
5	MOVE CCLAMPS, SHEETMETAL FROM WELDOUT TO WORKTABLE		
	Al BO Gl A54 B3 Pl A0	1.00	600.

TOTAL TMU 5460.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?'

Please input file <F02RC.M38 > ?

#### file Description ? WELD FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N

(	3	9	1	O	1	١

WELD ● W01 F02RC .M38

WELD FLAT OVAL TO RADIUS CORNERS WITH TIG-WELDER AT SHEETMETAL SHOP WELD BOOTH

PER FLAT OVAL OFG: 4 28-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 10

- 8 18 GAUGE GALV. SHEETMETAL
- \* 20X12 TO 16X12 FLAT OVAL TO RADIUS--
- \* --CIRNERS X 30' LG
- \* WELD R.C. AND FLAT OVAL CORNERS
- \* GAS TUNGSTEN ARC WELDING
- \* WELDING DONE IN WELD AREA BOOTH
- \* WORK PERFORMED BY WELDOR
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY. FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
0	Al BO Gl A6 BO P3 A0	1.00	110.
2	MOVE CART FROM WORKTABLE TO WELDTABLE  Al BO Gl Al31B3 Pl A0	1.00	1370 .
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTAELE TO WELDTABLE WITH 4 STEPS	_,,,	2070
4	Al BO Gl A6 BO P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	1.00	110.
	A3 BO G1 M1 X0 IO A32	1.00	370 •
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
_	Al BO Gl Ml XO IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SUPPLY HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	3 00	<b>5</b> 0
7	Al BO Gl Al BO Pl F3 AO BO PO AO WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
,	WELDOK TOKN COTFOT CONTROL DEVEK FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	Al BO Gl M3 X0 IO Al	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE		
	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4  A3 B3 G1 A1 BO P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	1.00	300.
	Al BO Gl Ml XlO IO AO	4.00	520 •
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL AT WELDTABLE		
11	Al BO Gl Al BO P6 A0 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F IO	1.00	90.
11	Al BO Gl Ml X0 IO Al	10.00	400.
12	WELDRO POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	10.00	100.
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 10		
1 2	A1 BO G1 A1 B6 P6 A0	10.00	1500.
13	OPERATE WELDING STINGER-BUTTON1 PROCESS F 20		

1.4	Al BO Gl M6 X81 IO AO	20.00	17800,
14	PULL WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 10  Al BO Gl Ml X0 IO Al	10.00	400.
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	20 ( 4 5 6 7 )		
	Al BO G1 (Al BO Pl Cl0) A1 B0 P1 A0 (20)	1.00	2440.
16	WELDOR REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO		
	CART AT WELDTABLE WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE		
	Al BO Gl Al3lBO Pl AO	1.00	1340.
	TOTAL T	MU	27290.

File Description ? WELD FLAT OVAL TO RADIUS CORNERS
Output to line-Printer <Y or N> ?

#### File Description ? RIVET FLAT OVAL TO RADIUS CORNERS

output to line-printer <Y or N> ? N

	,	$\sim$	7	١.
(		39	- 1	)

FIT .w11 FO2RC .M39

RIVET FLAT OVAL TO RADIUS CORNERS WITH RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL TO RADIUS CORNERS OFG: 4 O1-JUL-83

PER FLAT OVAL TO RADIUS CORNERS
NASSCO SHEETMETAL SHAPE 10

\* 18 GAUGE GALV. SHEETMETAL

\* 20.X12' TO RADIUS CORNERS 30'L

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
	Al BO Gl A3 BO P6 A0	2.00	220.
2	MARK RIVET HOLES FROM RIVET-HOLE-GUIDE TO SHEETMETAL AT		
	WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF		
	14(4567)		
	Al BO Gl (Al BO Pl R3) Al BO Pl AO (14)	1.00	740.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 3 STEPS F 14		
	Al BO Gl A6 BO P6 A0	14.00	1960.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 14		
_	Al BO Gl M6 X6 IO A0	14.00	1960.
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 14	14 00	1060
_	Al BO . Gl Al BO P6 AO	14.00	1260.
6	OPERATE RIVETGUN AT WORKTABLE PROCESS F 14	14 00	1 = 40
7	Al BO Gl M6 X3 IO AO	14.00	1540.
/	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING		
	CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 (4 5 6 7 ) Al BO Gl (Al BO P3 Cl) Al BO Pl A0 (8)	1.00	440.
8	Al BO Gl (A1 BO P3 Cl) Al BO P1 A0 (8) INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	1.00	440.
0	AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.

TOTAL TMU

8220,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?.

SHEET METAL SHAPE 10

### 25" X 15" to 20" x 14" FLAT OUAL to CADIUS COENERS

FAB	54280	32 MIN.
MARK out	25410	15 MIN.
WELD	84150	50 MIU.
TOYAL TMU	1.63840	98 MIN.

### File Description ? MARK OUT FLAT OVAL TO RADIUS CORNERS

Output to line-printer <Y or N> ? N  $\,$ 

_	<del>-</del>		
FIT	9, 1)  ● Wll F02RC .M50  MARK OUT FLAT OVAL TO RADIUS CORNERS WITH AWL AT SHEETMIFLAT OVAL TO RADIUS CORNERS OFG: 4 17-M2  NASSCO SHEETMETAL SHAPE 10  * 11 GAUGE GALV. SHEETMETAL  * 25'X15' TO 20'X14' RADIUS CORNERS  * 35'L WITH 4' RADIUS CORNERS  * MARK OUT USING TEMPLATE  FITTER BEGINS AT WORKTABLE		P
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	2 00	100
2	Al BO Gl Al BO P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	2.00	180.
3	Al BO Gl A6 BO P6 A0 MARK OUTLINE ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 1 DIGIT USING.REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	6.00	840.
4	Al BO Gl (Al BO P1 R3) Al BO Pl AO (6) POSITION CPUNCH FROM.WORKTABLE TO TEMPLATE AT WORKTABLE	1.00	340.
`	F 48  Al BO Gl Al BO P6 A0  5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 48 ( 4 5 6 7 )	48.00	4320.
6	Al BO Gl (A1 BO PO F3) A1 BO Pl A0 (48) REPLACE WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 3 STEPS	1.00	1960.
	F 4 Al BO Gl A6 BO P3 A0	4.00	440.
	REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE F 2  Al BO Gl Al DO P3 A0	2.00	120,
8	MARK CUT LIMES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16) Al BO Pl A0 (10)	1.00	1840,
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 86 ( 4 5 6 7 )		10107
10	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (36) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	4340.
11	Al BO Gl (Al BO PI R3) Al BO Pl A0 (521. MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	1.00	2640.
12	Al PO Gl (Al BO Pl M32)A1 BO Pl A0 (31 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1060 .
13	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3) Al BO Pl A0 (6)  POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	340.
	WORKTABLE F 5 Al BO Gl Al BO P6 A0	5.00	450.

14 MARK SHEETMETAL FROM STRAIGHTEDGES AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R16) Al BO Pl A0 (5) 1.00	940.
15 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )	
Al BO Gl (Al BO Pl R3) A1 B0 Pl A0 (40) 1.00 16 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 (4 5 6 7 )	2040.
Al BO Gl (Al BO Pl R3) Al BO PI AO (52) 1.00 17 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	2640.
Al BO Gl A6 BO P3 A0 2.00  18 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	220.
Al BO Gl A67 BO Pl A0 1.00	700.
TOTAL TMU	25410.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS output to line-printer <Y or N> ? N

(39, 1)	
FIT .Wll FO2RC M51	
SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS WITH	
14 FT. SHEAR AT SHEETMETAL SHOP PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83	
NASSCO SHEETMETAL SHAPE 10	
* 11 GAUGE GALV. SHEETMETAL	
* 25'X15' TO 20.X14' RADIUS CORNERS	
* 35'L WITH 4' RADIUS CORNERS	
* SHEAR 1 1/2' STRIPS FOR RADIUS CORNERS	
FITTER BEGINS-AT 14FT, SHEAR	
1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO	
14FT.SHEAR WITH 4 STEPS F 2	
Al BO Gl A6 BO P6 A0 2.00	280.
2 PUSH 14FT, SHEAR-FOOTPEDAL PROCESS F 2	200.
Al BO Gl Ml X3 IO AO 2.00	120.
3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR F 15	
Al BO Gl Al BO P6 AO 15.00	1350.
4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 15 Al BO Gl Ml X3 IO A0 15.00	900.
5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT	900.
14FT.SHEAR WITH 10 STEPS F 2	
Al HO Gl Al6 BO P3 A0 2.00	420.
6 MOVE CART WITH SHEETMETAL FROM 14FT.SHEAR TO WORKTABLE	
Al BO Gl A81 B3 Pl A0 1.00	870.
	2012
TOTAL TMU	3940.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUS ON CORNERS FOR F.O. TO R.C.

Output to line-Printer <Y or N> ? N

(39, 1)  FIT .Wll FO2RC M52  CUT RADIUS ON CORNERS FOR FLAT OVAL TO RADIUS CORNERS WITH SABER SAW AT SHEETMETAL SHOP  PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY- NASSCO SHEETMETAL SHAPE 10  * 11 GAUGE GALV, SHEETMETAL  * 25'Xls' TO 20'X14' RADIUS CORNERS  * 35'L WITH 4' RADIUS CORNERS  FITTER BEGINS AT WORKTABLE	
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	
112 20 01 110 20 10 110	2.00 220.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE  A96 BO Gl A96 B3 Fl A0	1.00 1970.
3 FASTEN NUT [SAW BLADE] TO SABER-SAW AT WORKTABLE 4 WRIST-TURNS USING ALLEN-WRENCH AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	1.00 320.
Al BO Gl (Al BO P3 FlO) Al BO P1 AO (2) I 4 OPERATE SABER-SAW FROCESS F 8	1.00 320.
Al BO G1 M6 X67 IO A0	8.00 6000.
5 FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) Al BO Gl (Al BO PO F6) A1 BO Pl AO (12)	1.00 880.
6 REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	
112 20 02 110 20 10 110	1.00 110.
7 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO 14FTHYDROPRESSBRAKE	
Al BO Gl A96 BO Pl A0	1.00 990.
TOTAL TMU	,0490.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

14430

File Description ? BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS

; OUTPUT to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 F02RC .M53

BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS WITH

14 FT, HYUROPRESS-BRAKE AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 10'

\* 11 GAUGE GALV. SHEETMETAL

\* 25'X15' TO 20'X14' RADIUS CORNERS

\* 35'L WITH 4' RADIUS CORNERS

FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL FROM CART AT 14FTHYDROPRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2		
	Al BO Gl A6 BO P6 A0	2.00	230.
2	PUSH 14FTHYUROPESSBRAKE-FOOTPEDAL PROCESS F 2		
	Al BO Gl M1 X24 IO AO	2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO		
	14FTHYDROPRESSBRAKE F 64		
	Al BO Gl Al BO P6 A0	64.00	5760.
4	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 64		
	Al BO Gl Ml X24 IO AO-	64600	17280.
5	REPLACE SHEETMETAL FROM 14FTHYDROPRESSEBRAKE TO CART AT		
	14FTHYDROPRESSBRAKE WITH 4 STEP'S F 2		
	Al BO Gl A6 BO P3 A0	2.00	220.
	6 MOVE CART WITH SHEETMETAL FROM 14FTHYDROFRESSBRAKE TO		
	ROLLER		
	Al BO Gl A54 BO Pl A0	1.00	570.

TOTAL TMU 24650.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

39,080

Output to line-printer <Y or N> ? N

(39, 1)

I <sup>e</sup>

İ

FIT .Wll

F02RC .M54

FORM RADIUS ON COLLAR CORNERS FOR FLAT OVAL TO RADIUS CORNERS WITH ROLLER [ROLL FORMER] AT SHEETMETAL SHOP

PER FLAT OVAL TO RADIUS CORNERS

OFG: 4 17-MAY-83

NASSCO SHEETMETAL SHAPE 10

\* 11 GAUGE GALV, SHEETMETAL

- \* 25.'X15' TO 20'X14' RADIUS CORNERS
- \* 35'L WITH 4' RADIUS CORNERS
- \* NEXT OPERATION IN WELD AREA
- \* SEE F02RC.M55

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4		
	STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3		
	WRIST-TURNS USING HAND F 2		
	Al BO Gl Al BO Pl F6 A0 BO PO A0	2.00	200.
3	PUSH ROLLER-BUTTON PROCESS F 8		
	Al BO Gl Ml X96 IO AO	8.00	7920.
4	PLACE SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER		
	WITH 2 STEP'S F 8		
	Al BO Gl A3 B3 P3 A0	8.00	880.
5	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH		
-	2 STEPS F 9		
	A54 BO Gl A3 BO P3 A0	9.00	5490.
5	2 STEPS F 9	9.00	5490

Al BO Gl A54 B3 Pl A0

TOTAL TMU 15200.

1.00

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

6 MOVE CART WITH SHEETMETAL FROM ROLLER TO WORKTABLE

. 54,280

600.

Please input file <F02RC.M55> ?

File Description ? WELD FLAT OVAL TO RADIUS CORNERS

OutPut to line-printer <Y or N> ? N

(39,101)

WELD .WO1 F02RC .M55

WELD FLAT OVAL TO RADIUS CORNERS WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER FLAT OVAL TO RADIUS CORNERS OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 10

\* 11 GAUGE GALV, SHEETMETAL

- \* 25'X15' TO 20'X14' RADIUS CORNERS 35'L \* --WITH 4' RADIUS CORNERS

	* WELDING DONE IN WELD BOOTH AREA  * WELDOR PERFORMS THE WORK  * FITTER TRANSPORTS SHEETMETAL  FITTER BEGINS AT WORKTABLE			
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2			
2	Al BO Gl A6 BO P3 A0 FITTER MOVE CART FROM- WORKTABLE TO WELDTABLE	2.00	220.	
3	Al BO Gl Al31B3 PI AO PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS F 2	1.00	1370 .	
4	Al BO Gl A6 BO P3 A0 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	2.00	220.	
5	A3 BO Gl Ml X0 IO A32 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	370 .	
б	Al BO Gl M3 X0 IO Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F B	1.00	60.	
7	A3 B3 G1 A1 BO P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 3	3.00	1120.	
8	Al BO Gl Ml X10 IO A0 WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1 WRIST-TURN USING HAND F 42	3.00	1040.	
9	A1 BO G1 A1 BO P1 F3 A0 PO PO A03/ FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 42	42.00	ـ 2940. رون ک	•1
10	Al BO Gl Ml X0 IO Al WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTAELE F 42	42.00	1680. 532	λ
11	Al BO G1 Al BO P6 AO WELDOR OPERATE WELD STINGER-BUTTON2 AT WELDTABLE PTIME 65 S F 32 24	42.00	3780. 45445	
12	Al BO Gl M6 X17310 AO PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 42	32.00	57920, /5730	
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT	42.00	1680. 1.232	
	WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 15 ( 4 5 6 7 )		582	
	Al BO Gl (Al BO PO L16)A1 BO PI A0 (15)	1.00	2590.	

FOZRC. M55

14	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF		
	63 (4567)	1 00	56 40
	Al BO Gl (Al BO Pl Cl0) Al BO Pl AO (63)	1.00	7600.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		1960
	WELDTABLE WITH 4 STEPS F 2	0.00	000
1.	Al BO Gl A6 B0 P3 A0	2.00	220.
Τ6	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE	1 00	1240
	Al BO Gl Al31BO P1 AO	1.00	1340.
	TOTAL TM	11	84150.
	10175 111	<b>-</b>	04130.

File Description ? WELD FLAT OVAL TO RADIUS CORNERS
Output. to line-printer <Y or N> ?

SHEEF METAL SHIPE #

## 8x5" to 5x5"X6"IG SQUARE to FLAT OUAL

FAB	55,980	33 MIN.
MARK out	35,220	21 MIN.
WELD	11070	7 <u>MIN</u> _
TOTAL	102,270	_6/ MIN.

Please input file <FLOVAL.MOl> ?

File Description ? MARK out FLAT OVAL

Outp	out to line-printer <y n="" or=""> ? N</y>		
FIT M	9,3) .W08 FLOVAL.Mo1) MARK OUT SHEETMETAL FOR FLAT OVAL WITH-AWL AT SHEETHETAL FLAT OVAL NASSCO SHEETMETAL SHAP #11 * HULL 418 * DRAWING 501-292 * V2-92008 * V6-1951 * 22 'GAUGE GALV, SHEETMETAL * 8'X5' TO 5'X5' FLAT OVAL X6'L SQ 2 F.O. * USE TEMPLATE TO MARK OUT 2 HALVES FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1 00	140
2	Al BO Gl A6 BO P6 AO PLACE 2 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE. WITH 4 STEPS F 2	1.00	140.
3	Al BO Gl A6 BO P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 9 ( 4 5 6 7 )	2.00	220.
4	Al BO Gl (Al BO P1 R16) A1 BO Pi A0 (9) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	1660.
5	WORKTABLE F 40  Al BO Gl Al BO P6 A0  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	40.00	3600.
	HAMMER AND ASIDE PF 40 ( 4 5 6 7)  . Al BO Gl (Al BO PO F3) Al BO Pl A0 (40) REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO	1.00	1640.
	WORKTABLE WITH 3 STEPS' Al PO Gl A6 BO P3 A0	1.00	110.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS  Al BO Gl A6 BO P3 A0	1.00	110.
3	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 18 ( 4 5 6 7 )		
9	Al PO Gl (Al BO Pl R16 ) A1 BO Pl A0 (18) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE.5 DIGITS USING BLACKPEN AT WORKTABLE AND	1.00	3280.
1 0	ASIDE PF 50 ( 4 5 6 7 ) F 2 Al BO Gl (Al BO Pl R16 )A1 BO Pl A0 (50)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6,7	2.00	18080.
11	Al BO Gl (Al BO Pl R3) Al BO Pl A0 (52) MEASURE SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT	1.00	2640.
	WORKTABLE AND ASIDE PF 4( 4 5 6 7 )  Al RO Gl (Al RO Dl M32) Al RO Dl A0 (4)	1 00	1400

Al BO Gl (Al BO Pl M32) Al BO Pl AO (4) 1.00

12 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT

1400.

	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7)		
	Al BO Gl (Al BO Pl R3)Al BO Pl AO (4)	1.00	240.
13	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 3		
	Al BO Gl Al BO P6 A0	3.00	270.
14	MARK LINE FROM STRAIGHTEDGE AT WORKTABLE 1 DIGIT USING		
	AWL AT WORKTABLE AND ASIDE		
	Al BO Gl Al BO Pl R3 Al BO Pl A0	1.00	90.
15	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING		
	REDPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 )	7 00	000
16	Al BO Gl (Al BO Pl R3) Al BO Pl AO (5)	1.00	290.
ТО	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 12 ( 4 5 6 7 )  Al BO Gl (Al BO Pl R3)_ Al BO Pl A0 (12)	1 00	640.
17	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	040.
Τ,	WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
1 8	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR	1.00	110.
10	Al BO Gl A67 BO Pl A0	1.00	700.
	111 20 01 1107 20 11 110	1.00	700.
	TOTAL TM	IU	35220.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <0r H for help> ?

#### Please inPut file <FLOVAL.M02> ?

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8 FLOVAL.MO2

SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL SHEAR AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 24-MAR-83

NASSCO SHEETMETAL SHAPE #11

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* U6-1951
- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X5' TO S'XS' F.O. X6'L SQ. TO F.O.
- \* SHEAR 2 HALVES AND COLLAR FITTER BEGINS AT SMALLSHEAR

1	POSITION	SHEETMETAL	2	FROM	CART	AT	SMALLSHEAR	TO
	SMALLSHE	EAR						

	J		DO	~1		ъ0	D.C	7. 0	1 00	90.
		$A \perp$	BO	Gl	Al	ВО	Р6	A0	1.00	90.
2	OPERATE FOOTPEDAL AT SMA	ALLSH	EAR	PROC	CESS					
		Al	BO	Gl	Мб	Хб	IO	A0	1.00	140.
3	POSITION SHEETMETAL FROM	M SM	ALLS	HEAR	. TO	SMAL	LSHE	AR F 10		
		Al	BO	Gl	Al	BO	Рб	A0	10.00	900.
4	OPERATE FOOTPEDAL AT SMA	ALLSH	EAR	PROC	CESS	F 10				
		Al	BO	Gl	Мб	Хб	IO	A0	10.00	1400.
5	REPLACE SHEETMETAL FROM	SMAI	LLSH	EAR	TO C	ART .	ΑT			
	SMALLSHEAR WITH 4 STEPS	1								
		Al	во	Gl	Аб	BO	Р3	A0	1.00	110.
6	MOVE CART WITH SHEETMET.	AL F	ROM	SMAL	LSHE	AR T	O WO	RKTABLE	l !	
_		Al	ВО	Gl		7 B3		A0	1.00	730.

TOTAL TMU 3370.

Type D,EM,CT,EW,EX,L,LD,LS,M,TW <or H for help> ?

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ?

Please input file <FLOVAL,MO

> ? T

File Description ? SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8

FLOVAL.M03

.SHEAR SHEETMETAL FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* U6-1951
- \* 22 GAUGE GALV, SHEETMETAL
- \* 8'X5' TO 5'X5' F.O. X 6'L SQ. TO F.O.
- \* SHEAR RADIUS CORNERS ON 2 HALVES

FITTER BEGINS AT WORKTABLE

1	PLACE	SHEETMETAL	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	4 STEPS						

Al BO Gl A6 BO P3 A0	1.00	110.
2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
A96 BO Gl A96 B3 Pl A0	1.00	1970.
3 OPERATE UNISHEAR PROCESS F 8		
Al BO Gl M6 X17310 A0	8.00	14480.
4 CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
SNIPS AT WORKTABLE AND ASIDE PF 20 ( $4$ 5 $6$ $7$ )		
Al BO Gl (Al BO P3 C3) Al BO Pl AO (20)	1.00	1440.
5 FASTEN ( FLATTEN )_ CORNERS ON SHEETMETAL AT WORKTABLE 3		
STRIKES USING HAMMER AND ASIDE PF 12 ( 4 5 6 7 )		
Al BO Gl (Al BO PO F6) Al BO Pl AO (12)	1.00	880.
6 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS		
Al BO Gl A6 BO P3 A0	1.00	110.
7 MOVE CART FROM WORKTABLE TO WORKBENCH		
Al BO Gl A67 B3 P1 A0	1.00	730.

TOTAL TMU 19720.

23030

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? T

please input file <FLOVAL.M04> ?

File Description ? FORM COLLAR FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .WO8 FLOVAL.MO4

FORM SHEETMETAL FOR FLAT OVAL COLLAR WITH HAND OPERATED ROLLER AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X5' TO 5'X5'X6'L SQ TO F,O,
- \* ROLL UP FLAT OVAL RADIUS CORNERS
- \* HAND OPERATED ROLLER (HAND-ROLLER)

FITTER BEGINS AT WORKBENCH

1	PLACE SHEETMETAL FROM CART AT WORKBENCH TO WORKBENCH WITH 3 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
	2 FASTEN BOLT [ROLLS] TO SHEETMETAL WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 4		
	Al BO Gl Al BO Pl FlO AO BO PO AO	4.00	560.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 4		
	Al BO Gl M6 X0 IO A0	4.00	320.
4	LOOSEN BOLT [TOLLS] TO SHEETMETAL WITH HAND-ROLLER AT WORKBENCH 5 SPINS USING FINGERS F 4	4 00	F.C.0
_	Al BO Gl Al BO P1 LlO AO BO PO AO	4.00	560.
5	REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS		
	Al BO Gl A6 BO P3 A0	1.00	110.
6	MOVE CART FROM WORKBENCH TO LEAFBRAKE		
	Al BO Gl AlO BO Pl AO	1.00	130.

TOTAL TMU 1790.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

24,880

Please input file <FLOVAL 05> ?

file Description ? BEND RADIUS FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

(39,3)

FIT .WO8 FLOVAL.MO5

BEND SHEETMETAL FOR FLAT OVAL RADIUS WITH LEAF BRAKE AT

SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

\* HULL 418

- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GLAV. SHEETMETAL
- \* 8'X8' TO 5'DIA. X9'L XSQ. TO FLAT OVAL
- \* BEND RADIUS ON 2 PIECES FOR FLAT OVAL

FITTER BEGINS AT LEAFBRAKE

_	PLACE SHEETMETAL FROM CA	ART	AT L	EAFB	RAKE	TO	LEAF	BRAKE		
		Al	во	Gl	Аб	во	Р3	A0	2.00	220.
2	GRIP LEAFBRAKE ADJUSTMEN	T R	DD TO	) LEA	AFBRA	KE U	SING	1		
	VISEGRIPS AND ASIDE				_		_			
	A81 B3 Gl A81	BC	P3	C1	Al	BO	Ρl	A0	1.00	1720.
3	OPERATE LEAFBRAKE-LEVER	PRO	CESS	F 80	)					
		Αl	BO	Gl	Мб	X16	IO	A0	80.00	19200.
4	REPLACE SHEETMETAL2 FROM	LEZ	AFBR <i>P</i>	KE 7	ro ca	RT A	T LE	AFBRAKI	Ε	
	WITH 4 STEPS F 2									
		Al	ВО	Gl	Аб	BO	P3	A0	2.00	220.
5	MOVE CART FROM LEAFBRAKE	TO	WORK	TABI	ĿΕ					
		Al	во	Gl	A81	. вз	Pl	A0	1.00	870.
								-		

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

22230.

TOTAL TMU

Please input file <FLOVAL.M06> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8. FLOVAL.M06

ASSEMBLY SHEETMETAL FOR FLAT OVAL WITH RIVET GUN AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X5'TO 5'X5' F.O. X6'L SQ. TO F.O.
- \* RIVET 2 HALVES OF SQ TO F.O. TOGETHER

FITTER BEGINS AT WORKTABLE

1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE		
WITH 4 STEPS		
Al BO Gl A6 BO P3 A0	1.00	110.
2 FASTEN 5.32DRILL-BIT FROM WORKTABLE TO DRILLMOTOR AT		
WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
Al BO Gl Al BO P3 F6 Al BO P1 AO	1.00	140.
3 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT		
WORKTABLE WITH 3 STEPS		
Al RO Gl A6 BO P6 A0	1.00	140.
4 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING	1.00	110.
VISEGRIPS AND ASIDE PF 2 (4 5 6 7 )	1 00	1.40
Al B0 Gl (Al B0 P3 Cl) Al B0 Pl A0 (2)	1.00	140.
5 OPERATE DRILLMOTOR PROCESS F 2		000
Al BO Gl H6 X6 IO AO	2.00	280.
6 POSITION RIVETS FROM. WORKTABLE TO SHEETMETAL AT		
WORKTABLE F 2		
Al BO Gl Al BO P6 AO	2.00	180.
7 OPERATE RIVETGUN PROCESS F 2		
Al BO Gl M6 X3 IO AO	2.00	220.

Type D,EM,CT,EW,EX,L,LD,lS,M,T,W <or H for help> ?

48320

1210.

TOTAL TMU

please input file <FLOVAL.M07> ?

File Description ? TACK COLLAR TO FLAT OVAL

Output to line-Printer <Y or N> ? N

(39, 3)

FIT .WO8 FLOVAL.MO7

TACK SHEETMETAL FOR FLAT OVAL WITH TACK WELDER AT SHEETMETAL SHOP PER FLAT OVAL OFG: 4 25-MAR-83

NASSCO SHEETMETAL SHAPE #11

- \* HULL 418
- \* DRAWING 501-292-
- \* V2-92008
- \* V6-1951
- \* 22 GAUGE GALV. SHEETMETAL
  - \* 8'X5' TO 5'X5'.F.O. X6'L SQ, TO F.O.
  - \* USE TEMPLATE TO HARK OUT 2 HALVES
  - \* NEXT MOST ANALYSIS FOR WELDING F.O.
  - \* SEE MWELD PROGRAM FOR FLOVAL.MO8 .

FITTER BEGINS AT WORKTABLE

1	MOVE	VISEGRIPS	,	SHEEETMETAL2,	FROM	WORKTABLE	TO
	WELD	OOUT					

	METIDOOI		
	'Al B0 Gl A54 B3 Pl A0	1.00	600.
2	POSITION SHEETMETAL FROM WELDOUT TABLE TO SHEETMETAL		
	AT WELDOUT TABLE WITH 3 STEPS		
	Al BO Gl A6 BO P6 A0	1.00	140.
3	GRIP SHEETMETAL TO SHEETMETAL2 AT WELDOUT USING		
	VISEGRIPS AND ASIDE PF 6 ( 4 5 6 7 )-		
	Al BO Gl (Al BO P3 Cl) Al BO Pl AO (6)	1.00	340.
4	OPERATE TACKWELDER PROCESS F 16		
	Al BO Gl M6 X3 IO AO 1	6.00 1	760.
5	MOVE VISEGRIPS, SHEETMETAL FROM WELDOUT TO WORKTABLE		

Al B0 Gl A54 B3 Pl A0 1.00

TOTAL TMU 3440.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

51,7.60

600.

File Description ? WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

Output to line-printer <y n="" or=""> ? N</y>	
(39, 3)  WELD ● WO1 SQ2FO .MO8  WELD SQUARE TO FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP  WELDING BOOTH  PER SQUARE TO FLAT OVAL OFG: 4 21-JUL-83  WELDING NASSCO SHEETMETAL SHAPE 11  * HULL 418  * DRAWING 501-292  * V2-92008  * V6-1951  * 22 GAUGE GALV. SHEETMETAL  * 8X5 TO 5X5 SQUARE TO FLAT OVAL  * WELDING DONE IN WELD AREA BOOTH  * GAS TUNGSTEN ARC WELDING  * WELDOR PERFORMS WORK  * FITTER TRANSPORTS SHEETMETAL	
FITTER BEGINS AT WORKTABLE	
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	
Al BO Gl A6 BO P3 A0 1.00 110 2 FITTER HOVE CART FROM WORKTABLE TO WELDTABLE	•
Al BO Gl Al31B3 Pl A0 1.00 1370  3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	
WELDTABLE WITH 4 STEPS  Al BO Gl A6 BO P3 A0 1.00 110	1.
4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	•
A3 BO G1 H1 X0 IO A32 1.00 370 5 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES	•
TO ON AT WELDMACHINES  Al BO Gl Ml X0 IO Al 1.00 40	ı
6 WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	•
Al BO Gl Al BO P1 F3 A0 BO PO A0 1.00 70 70 70 70 70 70 70 70 70 70 70 70 7	
WELDMACHINES TO ON AT WELDMACHINES Al HO Gl M3 $ imes$ 0 IO Al 1.00 60	١.
8 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMTAL ASSEMBLY AT WELDTABLE F 2	•
A3 B3 G1 A1 BO P6 A0 2.00 280	
9 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 2  Al BO Gl Ml X10 IO A0 2.00 260	
10 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 3	
Al PO Gl Al BO P6 A0 3.00 270 11 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 3	•
Al RO Gl Ml- X0 IO Al 3.00 120  12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	
ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 3	
al BO GI al B6 P6 a0 3.00 450	

Al BO Gl Al B6 P6 A0 3.00 450.

13 OPERATE WELD STINGER-BUTTON1 PROCESS F 5
Al BO Gl M6 X81 IO A0 5.00 4450.

## 5Q2F0 M.O.-8

J4 2 1 0 7 1 10 7		
14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 3		
Al BO Gl Ml X0 IO Al 15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7	3,00	1 2 0 .
Al BO Gl (Al BO Pl Cl) Al BO Pl AO (50)  16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT	1.00	1540.
WELDTABLE WITH 4 STEPS  Al BO Gl A6 BO P3 A0	1.00	110.
17 FITTER HOVE CART FROM WELDTABLE TO WORKTABLE  Al BO Gl Al31BO P1 A0	1.00	1340.
TOTAL T	MU	11070.

Type D,EH,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

TOTAL IMU

4220 -

Please input file <FLOVAL.MO9> ?

File Description ? RIVET FLAT OVAL ASSEMBLY Output to line printer <Y or N> ? N ( 39, 3) FIT .WOS FLOVAL, MO9 RIVET SHEETHETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT SHEETMETAL SHOP PER FLAT OVAL 0FG: 4 25-MAR-03 NASSCO SHEETMETAL SHAPE \$11 \* HULL 418 \* BRAWING 501-292 # V2-92008 \* 96-1951 \* 22 GAUGE GALV: SHEETHETAL \* 8"X5" TO 5"X3" F.O. X 6"L SDQ, TO F.O. \* SEAL SEAMS & RIVET HEADS WITH SFALART FITTER BEGINS AT WORKTABLE 1 POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SMEETMFTAL AT WORKTABLE WITH 3 STEPS A1 B0 61 A6 B0 P6 A0 1.00 140. 2 MARK RIVET HOLES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) A1 . B0 G1 (A1 BO P1 R3 )A1 B0 P1 A0 (8) 1,00 440. 3 OPERATE DRILLMOTOR ON SHEETHETAL AT WORKTABLE PROCESS F A1 B0 G1 M6 X6 IO -A0 3,00 1120. 4 POSITION RIVETS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 A1 B0 BO PS AO 8.00 720, A1 61 5 OPERATE RIVETOUN PROCESS F 8 680. A1 B0 G1 N6 X3 I0 A0 3,00 6 POSITION CAULKINGBUN TO SHEETHETAL AT WORKTABLE PF 8 ( 456) A1 B0 61 (A1 B0 P6 )A0 (B) 1:00 580. 7 ORTH SEALANT TO SHEETNETAL AT WORKTABLE USING CAULKINGGUN AND ASIDE PF 4 ( 4 5 6 7 ) A1 80 Ot (A1 80 P3 Ct )A1 80 Δ0 (4) 1,00 240. 8 INSPECT SHEETHETAL AT WORKTABLE 9 POINTS AO BO GO AO BO PO TIO AO BO 20 AO 1:00 100.

Type D.EM.CT.EW.EX.L., LD.LS.M.T.W (or N for help) ?

SHEEF METAL SHAPE # 11

# 15"x 15" to 12"x 16 x 25" LE SQUACE to FLAT OUR L

FAB	92,910	5.6 MIN.
MARK out	24,440	14 MIN
WELD	16450.	10 MIN.
TOTAL	133800,	30 MIN.

### Please input file (FLOVAL.M30> ?

File Description ? MARK OUT SHEETMETAL FOR FLAT OVAL

Output to line-printer <Y or N> ? N

ouc.	pac co line princer of it It		
FIT	● Wll FLOVAL.M30  MARK OUT SHEETMETAL FOR FLAT OVAL WITH AWL AT SHEETMETAL FLAT OVAL OFG: 4 14-AM NASSCO SHEETMETAL SHAPE 11  * 18 GAUGE GALV. SHEETMETAL  * 15'X15' TO 12'X10' FLAT OVAL 25' LG  * MARK OUT FLAT OVAL WITH TEMPLATE FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2		
2	Al B0 Gl A3 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 2 STEPS F 6	2.00	220.
3	Al B0 Gl A3 E0 P6 A0 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	6.00	660.
4	Al B0 Gl (Al B0 Pl R16)Al B0 Pl A0 (20) POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 1 STEP F 44	1.00	3640.
5	Al B0 Gl A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )	44.00	4840
6	Al B0 Gl (Al B0 P0 F3) Al B0 Pl A0 (44) REPLACE WEIGHTS FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 6	1.00	1800.
7	Al B0 G1 A3 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2	6.00	480.
8	Al B0 Gl A3 B0 P3 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )	2.00	160.
9	Al B0 Gl (Al B0 Pl R16 )Al B0 Pl A0 (20)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 84 ( 4 5 6 7 )	1.00	3640.
10	Al B0 G1 (Al B0 Pl R3) Al P0 Pl A0 (84) MARK IDENTIFICATION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTARLE AND ASIDE 52 ( 4 5 6 7 )	1.00	4240.
11	Al BO Gl Al BO Pl R3 Al BO Pl AO MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 3	1.00	90.
12	Al B0 Gl Al B0 Pl M32. Al B0 Pl A0 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	3.00	1140.
	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 / )	1 00	0.40

Al B0 Gl (Al B0 Pl R3) Al B0 Pl A0 (4) 1.00

13 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT

240.

## FLOVAL M30

WORKTABLE WITH 2 STEPS		
Al BO Gl A3 BO P6 A0	1.00	110.
14 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS		
USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )		
Al BO Gl (Al BO P1 R16)A1 BO P1 AO (3)	1.00	580.
15 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT		
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	,	
ASIDE PF 16 ( 4 5 6 7 )		
Al BO Gl (Al BO P1 R3) A1 BO P1 A0 (16)	1.00	840.
16 MARK IDIENTIFICATION INFORMATION ON SHEETMETAL AT		
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
ASIDE PF 16 ( 4 5 6 7 )		
Al BO Gl (Al BO Pl R3) Al BO Pl AO (16)	1.00	840.
17 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F 2		
Al BO Gl A6 BO P3 AO	2.00	220.
18, MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR		
Al BO Gl A67 BO Pl A0	1.00	700.
TOTAL TM	U	24440.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <FLOVAL.M31> ? {{

File Description ? SHEAR SHEETMETAL FOR FLAT OVAL

Output to line-Printer <Y or N> ? N

( 39 3)

FIT .Wll FLOVAL.M31

SHEAR SHEETMETAL FOR FLAT OVAL WITH SMALL 8FT. SHEAR AT

6 MOVE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE

SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11
\* 18 GAUGE GALV. SHEETMETAL

\* 15'X15' TO 12'X10' FLAT OVAL 25' L

FITTER BEGINS AT SMALLSHEAR

1	POSITION	SH	EETME	TΑ	L FROM	[ C	ART	AT	SMALLSHEAR	TO
	SMALLSHE	AR	WITH	4	STEPS	F	2			

SMALLSHEAR WIIN 4 SIEPS F Z		
Al BO 61 A6 RO P6 A0	2.00	280.
2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
Al BO Gl Ml X6 IO AO	2.00	180 .
3 POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH		
3 STEPS F 14		
Al BO Gl A6 BO P6 A0	14.00	1960.
4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 14		
Al HO Gl Ml X6 IO AO	14.00	1260.
5-REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT		
SMALLSHEAR WITH 18 STEPS F 2		
Al BO Gl A32 BO P3. AO	2.00	740.
6 MONTH CARD HITTH CHILDREN TO THE CONTROL OF THE C		

AL B0 Gl A67 B3 P1 A0 1.00 730.

TOTAL TMU 5150.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <FLOVAL.M32> ?

File Description ? SHEAR RADIUS FOR FLAT OVAL

Output to line-printer <Y or N> ? N

( 39, 3) FIT .W1

.W11 FLOVAL,M32

SHEAR RADIUS FOR FLAT OVAL WITH UNI-SHEAR AT SHEETMETAL SHOP PER FLAT OVAL OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11

\* 18 GAUGE GALV. SHEETMETAL

\* 15'X15' TO 12'X10' FLAT OVAL 25' L

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 10		
	A1 B0 G1 M6 X173I0 A0	10.00	18100.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 20 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P3 C3 )Al B0 P1 A0 (20)	1.00	1440.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 20 ( 4		
	5 6 7 )		
_	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (20)	1.00	1440.
6	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2		

Al B0 G1 A6 B0 P3 A0

A54 B0 P1 A0

TOTAL TMU 23960.

2.00

1.00

220.

570.

TrPe D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT

A1 B0 G1

29110

Please input file <FLOVAL.M33> ?

## File Description ? Form Lap ends for flat oval

Output to line-printer <Y or N> ? N

FIT SHOE	9,3) .W11 FLOVAL.M33  FORM LAP ENDS FOR FLAT OVAL WITH LAPOUT MACHINE AT SHEETMETAL  FLAT OVAL OFG: 4 14-APR-83 NASSCO SHEETMETAL SHAPE 11 * 18 GAUGE GALV. SHEETMETAL * 15'X15' TO 12'X10' FLAT OVAL 25'L  FITTER BEGINS AT LAPOUT	
1	PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P3 A0 2.00	220.
2	PUSH LAPOUT-SWITCH PROCESS F 2  Al B0 G1 M1 X16 IO A0 2.00	380.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS F 2	
	A6 B0 G1 M1 X0 I3 A0 2.00	220.
4	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P3 A0 2.00	220.
5	MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO HAND-ROLLER	
	AT WORKBENCH Al B0 G1 A24 B3 P1 A0 1.00	300.
	TOTAL TMU	1340.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

30450

Please input file <FLOVAL.M34> ?

File Description ? FORM RADIUS ON COLLAR FOR FLAT OVAL

Output to line-printer <Y or N> ? N

( 39, 3)

FIT .W11 FLOVAL.M34

FORM RADIUS ON COLLAR FOR FLAT OVAL WITH ROLL FORMER (ROLLER) AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 14-APR-83

NASSCO SHEETMETAL SHAPE 11

- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' TO 12'X10' FLAT OVAL 25'L

FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 2		
Al BO G1 A6 BO F6 A0	2.00	280.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT		
WORKBENCH 5 SPINS USING FINGERS F 6		
A1 B0 G1 A1 B0 F1 F10 A0 B0 P0 A0	6.00	840.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 6		
A1 B0 G1 M6 X0 I0 A0	6.00	480.
4 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO		
CART AT WORKBENCH WITH 4 STEPS F 2		
A1 B0 G1 A6 B0 P3 A0	2.00	220.
5 MOVE CART WITH SHEETMETAL2 FROM WORKBENCH TO		
CORNICEBRAKE		
A1 B0 G1 A32 B0 P1 A0	1.00	350.

TOTAL TMU 2170.

Type D,EM,CT,EW,EX,L,LD,LS,H,T,W <or H for help> ?

(39,	3)	
FIT	.W11	FLOVAL.M3

BEND RADIUS FOR FLAT OVAL WITH CORNICE BRAKE AT SHEETMETAL SHOP ER FLAT OVAL OFG: 4 22-APR-83

NASSCO SHEETMETAL SHAPE 11

- \* HULL 414
- \* DRAWING 501-072
- \* V2-72003
- \* V6-3941
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' TO 12'X10' FLAT OVAL 25'L

FITTER BEGINS AT CORNICEBRAKE

1	1 POSITION SHEETMETAL2 FROM CART AT CORNICEBRAKE TO	
	CORNICEBRAKE WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P6 A0 2.00 2	280.
2	POPERATE CORNICEBRAKE-LEVER PROCESS F 36	
	A1 B0 G1 M6 X42 IO A0 36.00 180	100.
3	POSITION SHEETMETAL2 FROM CORNICEBRAKE TO CORNICEBRAKE	
	F 2	
	A1 B0 G1 A1 B0 P6 A0 2.00 1	180.
4	OPERATE CORNICEBRAKE-LEVER PROCESS F 36	
	A1 B0 G1 M6 X42 IO A0 36.00 180	00.
5	REPLACE SHEETMETAL2 FROM CORNICEBRAKE TO CART AT	
	CORNICEBRAKE WITH 4 STEPS F 2	
		220.
6	MOVE CART WITH SHEETMETAL2 FROM CORNICEBRAKE TO	
Ŭ	WORKTABLE	
	·······················	500.

TOTAL TMU 37280,

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

69,900

Please input file <FLOVAL.M36> ?

File Description ? ASSEMBLE FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11 FLOVAL.M36

ASSEMBLE SHEETMETAL PARTS FOR FLAT OVAL WITH RIVET GUN AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 22-APR-83

NASSCO SHEETMETAL SHAPE 11

- \* HULL 414
- \* DRAWING 501-072
- \* V2-72003
- \* V6-3941
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' TO 12'X10' FLAT OVAL 25'L
- \* COMPLETE RIVETING AFTER WELDING COLLAR

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL2 FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 2 STEPS		
	A1 B0 G1 A3 B0 P6 A0	1.00	110.
3	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING	_,,,	
	VISEGRIPS AND ASIDE PF 2 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 C1 )A1 B0 F1 A0 (2)	1.00	140.
4	FASTEN 5.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE WITH 3	1.00	110.
_	WRIST-TURNS USING CHUCKKEY AND ASIDE		
	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
_	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2	1.00	140.
5		0 00	000
_	A1 B0 G1 M6 X6 IO A0	2.00	280.
6	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 2		
	A1 B0 G1 A1 B0 P6 A0	2.00	180.
7	OPERATE RIVETGUN PROCESS F 2		
	A1 B0 G1 M6 X3 IO A0	2.00	nno •

TOTAL TMU 1290.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

7/,190

Please input file <FLOVAL.M37> ?

file Description ? TACK WELD COLLAR TO FLAT OVAL

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W11 FLOVAL.M37

TACK WELD COLLAR ON FLAT OVAL WITH TACK WELDER AT SHEETMETAL SHOP PER FLAT OVAL OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 11

- \* HULL 414
- \* DRAWING 501-072
- \* V2-72003
- \* V6-3941
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15' TO 12'X10' FLAT OVAL 25'L
- \* HOLD COLLAR IN PLACE WITH VISEGRIPS
- \* AFTER THIS ANALYSIS-MOVE TO WELD AREA
- \* WELD ASSEMBLY WITH FLOVAL.M38

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETAL2 , VISEGRIPS , FROM WORKTABLE TO WELDOUT	
	A1 B0 G1 A54 B3 F1 A0 1.00	600.
2	POSITION SHEETMETAL2 FROM TABLE AT WELDOUT TO	
	SHEETMETAL2 AT WELDOUT WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P6 A0 2.00	280.
3	GRIP SHEETMETAL2 TO SHEETMETAL2 AT WELDOUT USING	
	VISEGRIPS AT WELDOUT AND ASIDE PF 8 ( 4 5 6 7 )	
	A1 B0 G1 (A1 B0 P3 C1 )A1-B0 P1 A0 (8) 1.00	440.
4	OPERATE TACKWELDER AT WELDOUT PROCESS F 20	
	A1 B0 G1 M6 X3 IO A0 20.00	2200.
5	MOVE VISEGRIPS , SHEETMETAL2 , FROM WELDOUT TO	
	WORKTABLE	
	Al B0 G1 A54 B3 F1 A0 1.00	600.
	TOTAL TMU	4120.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? WELD FLAT OVAL

Output to line-printer <Y or N> ? N

Out	put to line-printer < Y or N> ? N		
WELD	9, 3)  .WO1  FLOVAL.M38  WELD FLAT OVAL WITH TIG-WELDER AT SHEETMETAL SHOP WELDING FLAT OVAL  WELDING NASSCO SHEETMETAL SHAPE 11  * HULL 414  * DRAWING 501-072  * V2-7203  * V6-3941  * 18 GAUGE GALV. SHEETMETAL  * 15'X15' TO 12'X10' FLAT OVAL 25'LG  * WELDING DONE IN WELD AREA BOOTH  * WELDOR PERFORMS THE WORK  * FITTER TRANSPORT SHEETMETAL ASSEMBLY  FITTER BEGINS AT WORKTABLE		31
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
2	Al B0 G1 A6 B0 P3 A0 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	1.00	110.
4	Al BO G1 Al31B3 P1 AO	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO WELDTABLE WITH 4 STEPS	1 00	110
4	A1 B0 G1 A6 B0 P3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	1.00	110.
5	A3 B0 G1 M1 X0 I0 A32 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	370.
6	Al B0 G1 Ml X0 I0 Al WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND	1.00	40.
7	Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES	1.00	70.
8	Al B0 G1 M3 X0 I0 Al WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
9	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 5 A3 B3 G1 A1 B0 P6 A0 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	5.00	700.
	Al BO G1 M1 X10 IO AO	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	4 00	260
11	Al B0 G1 Al B0 P6 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 5 Al B0 G1 Ml X0 I0 Al	4.00	360.
12	WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5	5.00	200.
1	Al BO G1 Al B6 P6 AO	5.00	750,
	3 OPERATE WELD STINGER-BUTTON1 PROCESS F 10 Al B0 G1 M6 X81 I0 A0 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 5	10.00	8900,
14	Al B0 G1 M1 X0 IO Al	5.00	200 .

200 .

	FLOVAL M38	
15	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10	
	ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF	
	PF 10(4567)	
	Al B0 G1 (Al B0 P1 C10 )Al B0 P1 A0 (10) 1.00	1240.
16	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT	
	WELDTABLE WITH 4 STEPS	
	Al B0 G1 A6 B0 P3 A0 1.00	110.
17	FITTER MOVE CART FROM WELDTABLE TO WORKTABLE	
	A1 B0 G1 Al31B0 P1 A0 1.00	1340.
	TOTAL TMU	16450.

Type D, EM, CT, EW, EX, L, LD, LS, T, W <or H for help> ?

Please input file <FLOVAL.M39> ?

File Description ? RIVET FLAT OVAL ASSEMBLY

Output to line-printer <Y or N> ? N

( 39, 3)

FIT • W11 FLOVAL.M39

RIVET SHEETMETAL FOR FLAT OVAL ASSEMBLY WITH RIVET GUN AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 25-APR-83

NASSCO SHEETMETAL SHAPE 11

- \* HULKL 414
- \* DRAWING 501-072
- \* V2-72003
- \* V6-3941
- \* 18 GAUGE GALV. SHEETMETAL
- \* 15'X15 TO 12'X10' FLAT OVAL 25'L
- \* SEAL SEAMS AND RIVETS WITH SEALANT

FITTER BEGINS AT WORKTABLE

1	POSITION RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2													
	Al BO G1 A6 BO P6 A0	2.00	280.											
2	MARK RIVET HOLES ON SHEETMETAL FROM RIVET-HOLE-GUIDE AT													
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND													
	ASIDE PF 32 ( 4 5 6 7 )													
	Al BO G1 (R1 B0 P1 R3 )A1 B0 P1 A0 (32)	1.00	1640.											
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT													
	WORKTABLE WITH 2 STEPS F 32													
	Al BO G1 A3 BO P6 A0	32.00	3520.											
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 32													
	Al BO G1 M6 X6 IO AO	32.00	4480.											
5	POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT													
	WORKTABLE WITH 2 STEPS F 32													
	Al BO G1 A3 BO P6 A0	32.00	3520.											
6	OPERATE RIVETGUN AT WORKTABLE PROCESS F 32													
	Al BO G1 M6 X3 IO AO	32.00	3520.											
7	GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING													
	CAULKINGGUN AND ASIDE PF 10 ( 4 5 6 7 )													
	Al BO Gl (A1 B0 P3 Cl )A1 B0 P1 A0 (10)	1.00	540.											
8	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS													
	AO BO GO AO BO PO T10 AO BO PO AO	1.00	100.											

TOTAL TMU 17600,

SHEEF METAL SHAPE 11

FAB	32,240	19 MIN.
MAKK. OUT	21,650	12 MIN.
WELD	11570	7 MIN
TotAL	65460	39 MIN.

### File Description ? MARK OUT FLAT OVAL TO SQUARE CORNER

Output to line-Printer <Y or N> ? N

FIT	99 1) .W11 F02SQC.M50  MARK OUT FLAT OVAL TO SQUARE CORNER WITH AWL AT SHEETMET FLAT OVAL NASSCO SHEETMETAL SHAPE 11 * 11 GAUGE GALV. SHEETMETAL * 10'X5' SQUARE TO FLAT OVAL FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS	1 00	1.40
2	Al B0 G1 A6 B0 P6 A0 PLACE WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 4 STEPS F 6	1.00	140.
3	Al B0 G1 A6 B0 P3 A0 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7	6.00	660.
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 32	1.00	1120.
5	Al B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 32 (4 5 6 7 )	32.00	3520.
6	Al BO G1 (Al BO PO F3 )Al BO P1 AO (32) REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 6	1.00	1320.
7	Al BO G1 A6 BO P3 AO REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	6.00	660.
8	Al B0 G1 A6 B0 P3 A0 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	220.
3	USING REDPEN AT WORKTABLE AND ASIDE PF 18 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (18) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND ASIDE PF 52 ( 4 5	1.00	3280.
10	Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (52)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKFEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	2640.
11	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 GO (52) MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00	2640.
	STEEL-TAPE AT WORKTABLE AND ASIDE F 4 Al B0 G1 Al B0 P1 M32 Al B0 P1 A0	4.00	1520.
12	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	0.4.0
13	Al B0 G1 (Al B0 P1 R3 )Al B0 P1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3	1.00	240.
14	Al BO G1 Al BO F6 AO MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 3 (	3.00	270.

	FOZSQC M.50																	
	4 5	67)	ъo	<b>Q1</b>	/ 7. 1	DΛ	D1	D16	\ 7\ 1	DΛ	ъ1	7\ ()	(2)	1.00	_	80.		
1 -	3 4 3 D 17				•								(3)	1.00	5	ου.		
15		CUT L																
	USIN	IG REDF												1 00	1	0	0	
1.	143 D I				•				•			ΑU	(3)	1.00	4	U	U	•
Τ6		CONST										\.TD						
	WORK	TABLE	T DT	-GT.T.	USING	ВЬА	CKPŁ	IN A.I.	WORK:	ĽABL	ıE A	ND						

USING BLACKPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) 1.00 640. 18 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2

Al BO G1 (Al BO P1 R3 )Al BO P1 AO (14) 1.00 740.

Al B0 G1 A6 B0 P3 A0 2.00 220 . 19 MOVE CART FROM WORKTABLE TO 14FT.SHEAR Al B0 G1 A81 B0 P1 A0 1.00 840.

TOTAL TMU 21650.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT

WORKTABLE 1 DIGIT USING ASIDE PF 14 ( 4 5 6 7 )

#### File Description ? SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 F02SQC.M51

SHEAR SHEETMETAL FOR FLAT OVAL TO SQUARE CORNERS WITH 14FT.SHEAR AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

- \* 11 GAUGE GALV. SHEETMETAL
- \* 10'X5' SQUARE TO FLAT OVAL
- \* SHEAR 1 1/2' STRIPS FOR RADIUS --

1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO

\* -- COLLAR ON FLAT OVAL

FITTER BEGINS AT 14FT.SHEAR

	14FT.SHEAR	WITH 4	STEPS	F 2								
				Al	В0	G1	Аб	в0	Р6	A0	2.00	
^	הדומון 1 / הייה מו	סם מגםו		DD (	AEG	7 E	2					

2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 3
Al B0 G1 Ml X3 I0 A0 2.00 120.
3 POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH
4 STEPS F 13

Al B0 G1 A6 B0 P6 A0 13.00 1820.
4 PUSH 14FT.SHEAR-FOOTFkDAL PROCESS F 13
A1 B0 G1 Ml X3 I0 A0 13.00 780.
5 REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT
14FT.SHEAR WITH 4 STEPS F 2

Al BO G1 A6 BO P3 AO 2.00 220.
6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE
Al BO G1 A81 B3 P1 AO 1.00 870.

TOTAL TMU 4090.

280.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS
Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 F02SQC.M52

CUT RADIUS FOR FLAT OVAL TO SRUARE CORNERS WITH SABER-SAW AT SHEETMETAL SHOP
PER FLAT OVAL OFG: 4 24-MAY-83

PER FLAT OVAL
NASSCO SHEETMETAL SHAPE 11

- \* 1.1 GAUGE GALV. SHEETMETAL
- \* 10'X5' SQUARE TO FLAT OVAL
- \* CUT RADIUS & CORNERS WITH SABER SAW FITTER BEGINS AT WORKTABLE

1	PLACE	S	HEETME'	TAI	FROM	CART	ΑT	WORKTABLE	TO	WORKTABLE
	WITH	4	STEPS	F	2					

WIII I DIDID I Z		
Al BO G1 A6 BO P3 A0	2.00	220.
2 MOVE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3 OPERATE SABER-SAW AT WORKTABLE PROCESS F 4		
Al BO G1 M6 X67 IO AO	4.00	3000.
4 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
WITH 4 STEPS F 2		
Al BO G1 A6 BO P3 A0	2.00	220.
5 MOVE CART FROM WORKTABLE TO 14FTHYDROPRESSBRAKE		
Al BO G1 A96 BO P1 AO	1.00	990.

TOTAL TMU 6400.

Type D, EM, CT, EW, EX, L, LD, LS,M, T, W <or H for help> ?

File Description ? BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS Output to line-Printer <Y or N> ? N

(39,1)

FIT .W11 F02SQC.M53

BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS WITH 14FT. HYDRO-PRESS-BRAKE AT SHEETMETAL SHOP PER FLAT OVAL OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

- \* 11 GAUGE GALV. SHEETMETAL
- \* 100'X5' SQUARE TO FLAT OVAL
- \* BEND RADIUS FOR FLAT OVAL

#### FITTER BEGINS AT 14FTHYDROPRESSBRAKE

1	POSITION SHEETMETAL 2 FROM CART AT 14FTHYDROFRESSBRAKE TO 14FTHYDROPRESSBRAKE WITH 4 STEPS F 2	
	Al BO G1 A6 B0 P6 A0 2.00	280.
2	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 2	200.
	Al BO G1 M1 X24 IO AO 2.00	540.
3	POSITION SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO	310.
	14FTHYDROPRESSBRAKE F 30	
	Al B0 G1 Al B0 P6 A0 30.00	2700.
4	PUSH 14FTHYDROPESSBRAKE-FOOTPEDAL PROCESS F 30	
	Al BO G1 Ml X24 IO AO 30.00	3100.
5	REPLACE SHEETMETAL FROM 14FTHYDROPRESSBRAKE TO CART AT	
	14FTHYDROPRESSBRAKE WITH 4 STEPS F 2	
	A1 B0 G1 A6 B0 P3 A0 2.00	220.
6	MOVE CART FROM 14FTHYDROPRESSBRAKE TO ROLLER	
	Al BO G1 A54 BO P1 AO 1.00	570.
	TOTAL TARE	10410
	TOTAL TMU	12410.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS

Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 F02SQC.M54

FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS WITH

ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER FLAT OVAL OFG: 4 24-MAY-83

NASSCO SHEETMETAL SHAPE 11

- \* 11 GAUGE GALV. SHEETMETAL
- \* 10'X5' FLAT OVAL TO SQUARE CORNERS
- \* ROLL UP RADIUS COLLARS FOR FLAT OVAL
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD....F02SQC.M55

FITTER BEGINS AT ROLLER

	FITTER BEGINS AT ROLLER		
1	POSITION SHEETMETAL FROM CART AT ROLLER TO ROLLER WITH 4 STEPS	1 0 0	1.40
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 WRIST-TURNS USING HAND		
	Al BO G1 Al BO P1 F6 AO BO PO AO	1.00	100.
3	PUSH ROLLER-BUTTON PROCESS F 3		
	Al BO G1 Ml X96 IO AO	8.00	7920 .
4	POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT ROLLER F 4		
	Al BO G1 Al BO P6 AO	4.00	360 .
5	REPLACE SHEETMETAL FROM ROLLER TO CART AT ROLLER WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220 .
6	MOVE CART FROM ROLLER TO WORKTABLE		
	Al B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL	ΓMU	9340.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### F02SQC.M55

#### File Description ? WELD SQUARE TO FLAT OVAL

Output to line-printer <Y or N> ? N

( 39,101) WELD .WO1 F02SQC.M55 WELD SQUARE TO FLAT OVAL WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH PER SQUARE TO FLAT OVAL OFG: 4 22-JUL-83	
WELDING NASSCO SHEETMETAL SHAPE 11  * 11 GAUGE GALV. SHEETMETAL  * 10X5 SQUARE TO FLAT OVAL 20'L  * WELDING DONE IN WELD AREA BOOTH  * WELDOR PERFORMS THE WORK  * FITTER TRANSPORTS SHEETMETAL  FITTER BEGINS AT WORKTABLE	gc in
1 FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	
Al B0 G1 A6 B0 P3 A0 2.00 2 FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	220.
Al B0 G1 Al31B3 P1 A0 1.00 3 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1370.
WELDTABLE WITH 4 STEPS F 2  Al B0 G1 A6 B0 P3 A0 2.00 4 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	220 .
WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 Ml X0 I0 A32 1.00  5 WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	370.
WELDMACHINES TO AT WELDMACHINES  Al B0 G1 M3 X0 I0 A1 1.00	60.
6 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4 A3 B3 G1 A1 B0 P6 A0 4.00	560.
7 WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4 Al BO G1 M1 X10 IO A0 4.00	520.
8 WELDOR FASTEN WELDROD TO STINGER AT WELDTABLE 1 WRIST-TURN USING, HAND F 12	340.
Al B0 G1 Al B0 P1 F3 A0 B0 P0 A0 $^{12.00}$ 9 FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 12	340.
m A1~B0~G1~M1~X0~i0~Al~12.00 10 WELDOR POSITION STINGER FROM WELDTABLE TO SHEETMETAL	480.
ASSEMBLY AT WELDTABLE F 12  Al B0 G1 Al B0 P6 A0 12.00	1030.
11 OPERATE WELD STINGER-BUTTON2 AT WELDTABLE F 9 Al B0 G1 M6 X0 I0 A0 9.00	720.
12 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 12  Al BO G1 Ml XO IO Al 12.00	430.
13 WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND ASIDE PF 5 ( 4 5 6 7 )	
Al B0 G1 (A1 B0 P0 L16 )A1 B0 P1 A0 (5) 1.00 14 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10 ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF	890.
18 (4567) Al BO G1 (A1 BO P1 ClO)A1 BO P1 AO (18) 1.00 15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART Al-	2200.

SHEEF METAL SHAPE 12

# 8"X8"X 20" LG. OGEE OFFSET OFFSE 5"

FAR	5/120	31 MIN.
MARK out	21660	13 MIN
TOTAL	7278 O	44 MIN.

Output to line-printer <Y or N> ? N

( 39, 1)  FIT .W11 OGEE .M40  MARK OUT CHEEKS FOR OGEE WITH AWL AT SHEETMETAL SHOP  PER OGEE OFG: 4 12-MAY-83  NASSCO SHEETMETAL SHAPE 12  * 22 GAUGE GALV. SHEETMETAL  * 8'X8'X20'L OGEE / OFFSET 5'  * MARK OUT CHEEKS WITH TEMPLATE.  FITTER BEGINS AT WORKTABLE	
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	
Al B0 G1 A6 B0 P6 A0 2.00 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATES AT WORKTABLE WITH 3 STEPS F 4	280.
	560.
Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE	1120.
5 FASTEN CFUNCH TO TEMPLATE AT WORKTABLE 1 STRIKE USING	880.
HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	360.
WITH 2 STEPS F 4  Al B0 G1 A3 B0 P3 A0 4.00 7 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO	320.
WORKTABLE WITH 2 STEPS F 2  Al B0 G1 A3 B0 P3 A0 2.00 8 MARK CUT LINE ON SHEETMETAL AT WORKTABLE 5 DIGITS USING	160.
REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1120.
WORKTABLE 1 DIGIT USING BLACKFEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44) 1.00	2240,
10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	2210,
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) 1.00	2640.
TOTAL TMU	9680.

### File Description ? MARK OUT WRAPPERS FOR OGEE

Output to line-Printer <Y or N> ? N

FIT	9, 1) .W11 OGEE .M41  MARK OUT WRAPPERS FOR OGEE OFFSET WITH AWL AT SHEETMETAL OGEE OFG: 4 12-MAY NASSCO SHEETMETAL SHAPE 12 * 22 GAUGE GALV. SHEETMETAL * 8'X8'X20'L OGEE OFFSET 5' * MARK OUT WRAPPERS WITHOUT TEMPLATES FITTER BEGINS AT WORKTABLE		
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	1400
2	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
3	Al B0 Gl (A1 B0 P1 R3 )A1 B0 P1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	240.
4	Al BO G1 Al BO P6 AO MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS	4.00	360.
E	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (4) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	760.
5	AT WORKTABLE F 8  Al B0 G1 Al B0 P6 A0	8.00	720.
6	MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	0.00	720.
7	Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.60	680.
	USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 ) AL BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (11)	1.90	2020.
8	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )		
۵	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (44) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	2240.
J	USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
11	Al B0 G1 A6 B0 P3 A0 MOUE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	2.00	220.
11	Al BO G1 A67 BO P1 A0	1.00	700.

TOTAL TMU

11980.

# File Description ? SHEAR SHEETMETAL FOR OGEE

#### ( )utput to line-printer <Y or N> ? N

( 39, 1)  FIT .W11 OGEE .M42  . SHEAR SHEETMETAL FOR OGEE OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP  PER OGEE OFG: 4 12-MAY-83  NASSCO SHEETMETAL SHAPE 12  * 22 GAUGE GALV. SHEETMETAL  * 8'X8'X20°L OGEE OFFSET 5'  * SHEAR 1' SPACER STRIPS FOR PITTSBURGH  *LOCKS  FITTER BEGINS AT SMALLSHEAR	
1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2	0.00
· Al B0 G1 A6 B0 P6 A0 2.00 2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	280.
Al BO G1 M1 X6 IO A0 2.00	180.
3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 14	1 060
Al B0 G1 Al B0 P6 A0 14.00 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2	1.260.
Al BO G1 Ml X6 IO A0 2.00	180.
5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2	
A1 B0 G1 A16 B0 P3 A0 2.00	420.
6 MOUE CART WITH SHEETMETAL FROM SMALLSHEAR TO WORKTABLE Al B0 G1 A67 B3 P1 A0 1.00	730.
TOTAL TMU	3050.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help\_> ?

## Gutput to line-printer <Y or N> ? N

FIT	9, 1) ,W11 OGEE .M43  SHEAR RADIUS ON CHEEKS FOR OGEE WITH UNI-SHEAR AT SHEETM OGEE OFG: 4 12-MA NASSCO SHEETMETAL SHAPE 12 * 22 GAUGE GALV. SHEETMETAL * 3'X8'X20"L OGEE / OFFSET 5' * BEND UP ONE CORNER ON CHEEK EDGE *WITH VISEGRIPS FOR EASY ENTRY INEDGE ROLLING MACHINE FITTER BEGINS AT WORKTABLE		OP
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
_	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 8		
4	Al BO G1 M6 X17310 AO	8.00	14480;
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING		
	SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 C3 )A1 BO P1 AO (16)	1 00	1160
5	Al B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16) FASTEN [FLATTEN] SHEETMETAL CORNERS ON SHEETMETAL AT	1.00	1160.

5 IIIDIDI [IDIIIDI] DIDDIIDIID COMUNIC ON DIDDIIDDIID III		
WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND		
ASIDE PF 16 ( 4 5 6 7 )		
Al BO G1 (A1 BO PO F6 )A1 BO P1 AO (16)	1.00	1160,
6 GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGE] 1 TWIST		
USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7		

	AL BO	GI (AI BO P3	CI )AI BO	PI AU (4)	1.00	240.
7	REPLACE SHEETME	TAL FROM WORKTAE	BLE TO CART AT	Γ WORKTABLE		
	WITH 4 STEPS F	2				
	WIIII 4 DIEFD F	=	G1 76 D0	D2 70	2 00	220
			G1 A6 B0		2.00	220.
8	MOUE CART WITH	SHEETMETAL FROM	WORKTABLE TO	LAPOUT		
		A1 B0	G1 A54 B0	P1 A0	1.00	570.
		111 20	32 1131 20			5,0.

TOTAL TMU 19910,

Type D,EM,CT,EW,EX,L,LB,LS,M,T,W <or H for help> ?

File Description ? FORM LAP ENDS FOR OGEE

Output to line-Printer <Y or N> ? N

( 39, 1) FIT ● W11 OGEE .M44 FIT

FORM LAP ENDS FOR OGEE OFFSET WITH LAPOUT AT SHEETMETAL SHOP OFG: 4 12-MAY-83 PER OGEE

NASSCO SHEETMETAL SHAPE 12

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8'X20'L OGEE / OFFSET 5'

FITTER BEGINS AT LAPOUT

140.
760.
110.
440.
190.
11) 44)

Type D,EM,CT,EW,EX,L,LU,LS,M,T,W <or H for help> ?

TOTAL TMU

1940.

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

#### | ( )utput to line-printer <Y or N> ? N

(39, 1)

FIT ● W11 OGEE .M45

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE OFFSET WITH

EDGER (ROTARY MACHINE) AT SHEETMETAL SHOP

PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8'X20"L OGEE / OFFSET 5'

FITTER BEGINS AT EDGER

1 POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2

	SIEPS F Z						
		A1 B0	G1 A6	B0	P6 A0	2.00	280.
2	PUSH EDGER-SWITCH PROCES	SF4					
		Al BO	G1 Ml	X42	IO AO	4.00	1800.
3	PUSH AND GUIDE SHEETMETA	AL THROUG	GH EDGER	WITH	I 3 STEPS	F	
		A6 B0	G1 Ml	ΧO	I3 A0	4.00	440.
4	REPLACE SHEETMETAL FROM	-	_	_			110.
	STEPS F 2						
		Al BO	G1 A6	в0	P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETA	AL FROM	EDGER TO	) PIT	TSBURGH		

A1 B0 G1 A16 B0 P1 A0

TOTAL TMU

1.00

190.

2930.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? FORM PITTSBURGH LOCKS FOR OGEE

# } { " Output to line-Printer <Y or N> ? N

(39, 1)

FIT .W11 OGEE .M46

FORM PITTSBURGH LOCKS FOR OGEE OFFSET WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER OGEE OFG: 4 12-MAY-83

NASSCO SHEETMETAL SHAPE 12
\* 22 GAUGE GLAV. SHEETMETAL
\* 8'X8'X20'L OGEE / OFFSET 5'

FITTER BEGINS AT PITTSBURGH

1	PLACE	SHEETMETAL	FROM	CART	AT	PITTSBURGH	TO	PITTSBURGH
	WITH	4 STEPS						

A1 B0 G1 A6 B0 P3 A0	1.00	110.
PUSH PITTSBURGH-BUTTON PROCESS F 4		
Al BO G1 Ml X32 IO AO	4.00	1400.
PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3		
STEPS F 4		
A6 B0 G1 Ml X0 I3 A0	4.00	440.
REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT		
PITTSBURGH WITH 4 STEPS		
Al BO G1 A6 BO P3 A0	1.00	110.
MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTAI	BLE	
Al B0 G1 A54 B3 P1 A0	1.00	600.
	PUSH PITTSBURGH-BUTTON PROCESS F 4  Al B0 G1 Ml X32 IO A0  PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3  STEPS F 4  A6 B0 G1 Ml X0 I3 A0  REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT  PITTSBURGH WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0  MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTAN	PUSH PITTSBURGH-BUTTON PROCESS F 4  Al B0 G1 Ml X32 IO A0 4.00  PUSH AND GUIDE SHEETMETAL THROUGH PITTSBURGH WITH 3  STEPS F 4  A6 B0 G1 Ml X0 I3 A0 4.00  REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT  PITTSBURGH WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0 1.00  MOVE CART WITH SHEETMETAL FROM PITTSBURGH TO WORKTABLE

TOTAL TMU 2660.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

### File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE

### Output to line-printer <Y or N> ? N

FIT	POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE OFFSET W	ITH HAMM	1ER
	SHEETMETAL SHOP OGEE OFG: 4 12-MA	v_83	
PER	NASSCO SHEETMETAL SHAPE 12 * 22 GAUGE GALV. SHEETMETAL * 8'X8'X20' OGEE OFFSET 5' FITTER BEGINS AT WORKTABLE	1 03	
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
_	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
_	Al BO G1 Al BO P6 AO	4.00	360.
4	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
_	Al B0 G1 (Al B0 P0 F3 )Al B0 P1 A0 (8)	1.00	360.
5	PLACE MASKING-TAPE TO SHEETMETAL AT WORKTABLE F 8  Al B0 G1 Al B0 P3 A0	8.00	480.
6	MOVE CART WITH SHEETMETAL FROM WORKTABLE TO ROLLER	0.00	400.
·	Al B0 G1 A54 B0 P1 A0	1.00	570.

Type B,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

33080

2590.

TOTAL TMU

### File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

### Qutput to line-printer <Y or N> ? N

(39, 1)  FIT • W11 OGEE .M48  FORM RADIUS ON WRAPPERS FOR OGEE OFFSET WITH HAND-ROLLER AT SHEETMETAL SHOP  PER OGEE OFG: 4 12-MAY-83  NASSCO SHEETMETAL SHAPE 12  * 22 GAUGE GALV. SHEETMETAL  * 8'X8'X20'L OGEE / OFFSET 5'  FITTER BEGINS AT WORKBENCH	
1 PLACE SHEETMETAL FROM FITTER AT WORKBENCH TO	
HAND-ROLLER AT WORKBENCH WITH 3 STEPS  Al B0 G1 A6 B0 P3 A0 1.00	110.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT WORKBENCH 5 SPINS USING HAND F 3	110.
Al B0 G1 Al B0 P1 F10 A0 B0 P0 A0 3.00	420.
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 6 Al BO G1 M6 X0 I0 A0 6.00	480.
4 POSITION SHEETMETAL [WRAPPERS] FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL [CHEEK] AT WORKBENCH WITH 3 STEPS	
Al B0 G1 A6 B3 P6 A0 1.00	170.
5 MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO WORKTABLE	
A67 B3 G1 A67 B3 P1 A0 1.00	1420.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

36,680

TOTAL TMU 2600.

# \*\*Jutput to line-printer <Y or N> ? N

Jute	out to line-printer <1 or N> : N		
FIT	9, 1) .W11 OGEE .M49 ASSEMBLE CHEEKS AND WRAPPERS FOR OGEE OFFSET WITH HAMMER TMETAL SHOP	R AT	
PER	OGEE NASSCO SHEETMETAL SHAPE 12 * 22 GAUGE GALV. SHEETMETAL * 8'X8'X20'L OGEE / OFFSET 5' * REMOVE SPACER STRIPS FROM PITTSBURGH *LOCKS AFTER ROLLING FITTER BEGINS AT WORKTABLE	AY-83	
1	REPLACE MASKING-TAPE FROM SHEETMETAL TO WORKTABLE F 8 WITH 2 STEPS		
2	Al B0 G1 A3 B0 P3 A0 LOOSEN SHEETMETAL FROM SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	8.00	640.
3	Al B0 G1 (A1 B0 P0 L6 )A1 B0 P1 A0 (8) MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE	1.00	600.
	A96 B0 G1 A96 B3 P1 A0 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT	1.00	1970.
5	WORKTABLE WITH 2 STEPS F 2  Al B0 G1 A3 B0 P6 A0  POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT  WORKTABLE WITH 2 STEPS F 6	2.00	220.
6	Al B0 G1 A3 B0 P6 A0 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3	6.00	660.
7	WRIST-TURNS USING HAND F 6 Al B0 G1 Al B0 P1 F6 A0 B0 P0 A0 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 16	6.00	6 0 0 ●
8	Al B0 G1 A1 B0 P6 A0 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES	16.00	1440.
9	USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F6 )A1 BO P1 AO (16)  FASTEN SHEETMETAL TO SHEETMETAL 4 STRIKES USING HAMMER	1.00	1160.
10	AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P0 F10 )A1 B0 P1 A0 (16)  LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3	1.00	1800.
11	WRIST-TURNS USING HAND F 6 Al B0 G1 Al B0 P1 L6 A0 B0 P0 A0 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	6.00	600.
	USING HAMMER AT WORKTABLE AND ASIDE PF 17 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F32 )A1 B0 P1 A0 (17)	1.00	5650.
12	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 PO T10 A0 B0 PO A0	1.00	100.

TOTAL TMU

15440.

# 22"X15" X 33"16. OGEE OFFSET. OFFSET 8"

FAB	<u> 73,550</u>	. 44	MIN.
MARK out	27,080	16	MIN.
TotAL	100 530	60	MIN.

# ile Description ? MARK OUT CHEEKS FOR OGEE

Output to line-printer <Y or N) ? N

( 3 FIT	9, 3) .wo9		
	MARK OUT CHEEKS FOR OGEE OFFSET WITH AWL AT SHEETMETAL S	HOP	
PER	OGEE OFG: 4 07-AP NASSCO SHEETMETAL SHAPE #12 * HULL 414 * DRAWING 501-062	R-83	
	* v2-1099  * V6-7607  * 18 GAUGE GALV. SHEETMETAL		
	* 22'X15'X33'L OGEE, OFFSET 8'  * MARK OUT CHEEKS WITH TEMPLATE  FITTER BEGINS AT WORKTABLE		
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2		
2	A1 B0 G1 A6 B0 P6 A0 place 2 weighTs FrOm WORKTABLE to tEmplatEs at	2.00	280.
3	WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P3 A0  MARK OUTLINE FROM TEMPLATES TO SHEETMETAL AT WORKTABLE	2.00	220.
J	5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
4	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	1120.
5	WORKTABLE WITH 3 STEPS F 8  Al B0 G1 A6 B0 P6 A0  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	8.00	1120.
	HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8)	1.00	360.
6	REPLACE 2 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	0.00	222
7	Al B0 G1 A6 B0 P3 A0 REPLACE TEMPLATES FROM SHEETMETAL TO WORKTABLE WITH 3 STEPS F 2	2.00	220.
8	Al BO G1 A6 BO P3 AO MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	220.
	USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R16 )A1 BO P1 A0 (6)	1.00	1120.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7 )		
10	Al BO G1 (AÍ BO P1 R3 )A1 BO P1 AO (50) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7)	1.00	2540.
	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (50)	1.00	2540.

TOTAL TMU

9740.

File Description ? MARK OUT WRAPPERS FOR OGEE

12 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT

WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND

Output to line-printer <Y or N> ? N

Out	put to line-printer <1 or N> ? N		
( 3 FIT	9, 3) .W09  MARK OUT WRAPPERS FOR OGEE WITH AWL AT SHEETMETAL SHOP OGEE  NASSCO SHEETMETAL SHAPE #12  * HULL 414  * DRAWING 501-062  * V2-1099  * V6-7607  * 18 GAUGE GALV. SHEETMETAL  * 22'X15'X33'L OGEE, OFFSET 8'  * MARK OUT WRAPPERS WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	PR-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
2	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 ( 4 5 6 7 )	1.00	1400.
3	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (8) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4	1.00	440.
4	Al B0 G1 A6 B0 P6 A0 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS	4.00	560.
5	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (Al B0 Pl R16 )Al B0 Pl A0 (4) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	760.
6	ATWORKTABLE WITH 3 STEPS F 8  Al	8.00	1120.
	AWL AND ASIDE PF 8 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8)	1.00	680.
7	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8  Al B0 G1 A6 B0 P6 A0	8.00	1120.
8	FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
9	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	1.00	360.
10	Al B0 G1 A6 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE AT WORKTABLE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2.00	280.
11	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 )	1.00	400,
12	Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (11)	1.00	2020.

ASIDE PF 92 ( 4 5 6 7 )		
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (92)	1.00	4640.
13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT		
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)		
Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52)	1 00	2640.
14 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	2010.
WITH 4 STEPS F 2		
Al B0 G1 A6 B0 P3 A0	2.00	220.
15 MOVE CART WITH SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1 00	700
A1 B0 G1 A67 B0 P1 A0	1.00	700.
TOTAL TM	TT T	17340,
1011111		

Tupe .D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

27080

A32 B0 P3 A0

A67 B3 P1 A0

Please inPut file <OGEE.M22> File Description ? SHEAR SHEETMETAL FOR OGEE Output to line-printer <Y or N> ? N (3913).w09 OGEE SHEAR SHEETMETAL FOR OGEE WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP OFG: 4 07-APR-83 PER OGEE NASSCO SHEETMETAL SHAPE #12 \* HULL 414 \* DRAWING 501-062 \* V2-1099 \* V6-7607 \* 18 GAUGE GALV. SHEETMETAL \* 22'X15'X33'L OGEE, OFFSET 8' \* SHEAR 4,1'STRIPS -f FOR SPACERS WHEN ROLLING FITTER BEGINS AT SMALLSHEAR 1 POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS 1.00 140. B0 Pб Α0 Αl B0 G1 Аб 2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS 1.00 90. Al BO G1 Ml Хб ΙO Α0 POSITION SHEETMETAL2FROM SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 8 B0 Р6 A0 8.00 1120. Al BO G1 Α6 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8 8.00 720. MlХб IO **A**0 Αl в0 G1 5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT

B0 G1

B0 G1

Αl 6 MOVE CART WITH SHEETMETAL 2& ROM SMALLSHEAR TO WORKTABLE

Αl

TOTAL TMU 3170.

1.00

1.00

370.

730.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

SMALLSHEAR -WITH 20 STEPS

Please input file <OGEE.M23>

# " Lile Description ? SHEAR RADIUS ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

FIT	9, 3) .w09  SHEAR RADIUS ON CHEEKS FOR OGEE WITH UNI-SHEAR AT SHEETMOGEE  OFG: 4 07-API  NASSCO SHEETMETAL SHAPE #12  * HULL 414  * DRAWING 501-062  * v2-1099  * V6-7607  * 18 GAUGE GALV. SHEETMETAL  * 22'X15'X33'L OGEE, OFFSET 8'  * TURN UP EDGE CORNERS ON CHEEKS FOR EDGER  FITTER BEGINS AT WORKTABLE		ΟP
1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	0.00	000.1
2	Al B0 G1 A6 B0 P3 A0 GRIP SHEETMETAL AT WORKTABLE-USING VISEGRIPS AND ASIDE P F 4 ( 4 5 6 7 )	2.00	220.l
2	Al B0 G1 (Al B0 P3 C1 )A1 B0 P1 A0 (4)	1.00	240.
3	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 4 Al B0 G1 M6 X173I0 A0	4.00	7240.
5	CUT CORNERS ON SHEETMETAL AT WORKTABLE WITH 2 STEPS 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	1.00	7210.
6	Al B0 G1 (A3 B0 P3 C3 )A1 B0 P1 A0 (16) FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 16 ( 4 5 6 7 )	1.00	1480,
7	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) GRIP AND TWIST EDGES ON CHEEKS AT WORKTABLE 1 TWIST	1.00	1160.
8	USING VISEGRIPS AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (4) REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	240.
_	B0 G1 A6 B0 P3 A0	2.00	2 2 0 ●
9	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT Al B0 G1 A54 B0 P1 A0	1.00	570.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

16,510

13340.

TOTAL TMU

# Please input file <0GEE.M24> ?

File Description ? FORM LAP ENDS FOR OGEE

OutPut to line-printer <Y or N> ? N

( 39, 3)

FIT • w09

OGEE

FORM LAP ENDS FOR OGEE WITH LAPOUT MACHINE AT SHEETMETAL SHOP PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE, OFFSET 8'

FITTER BEGINS AT LAPOUT

1	PLACE SHEETMETAL FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4		
	Al BO G1 A6 BO P3 A0	4.00	440.
2	OPERATE LAPOUT-SWITCH PROCESS F 4		
	Al BO G1 M6 X16 IO AO	4.00	960.
3	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4		
	Al BO G1 A6 BO P3 A0	4.00	440.
4	MOUE CART WITH SHEETMETAL FROM LAPOUT TO EDGER		
	Al BO G1 Al6 BO P1 AO	1.00	190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

. 18,540

TOTAL TMU

2030.

Please input file <OGEE,M25>

# File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)

FIT .w09

OGEE 3

FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE WITH EDGER AT SHEETMETAL SHOP

PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE, OFFSET 8'
- \* START CHEEKS IN MACHINE--
- X WITH PREVIOUSLY CRIMPED EDGE

FITTER BEGINS AT EDGER

1	POSITION SHEETMETAL FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P6 A0	2.00	280.
2	OPERATE EDGER-SWITCH PROCESS F 2		
	Al BO G1 M6 X42 IO AO	2.00	1000.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER WITH 3 STEPS F		
	4		
	A6 B0 G1 Ml X0 I3 A0	4.00	440.
4	REPLACE SHEETMETAL FROM EDGER TO CART AT EDGER WITH 4		
	STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL FROM EDGER TO PITTSBURGH		
	Al BO G1 Al6 BO P1 AO	1.00	190.

Type D,EM,CT,EW,EX,L,LD,LS,,M,T,W <or H for help> ?

20,670

2130.

TOTAL TMU

Please input file <OGEE.M26> ?

#### tile Description ? FORM PITTSBURGH LOCK FOR OGEE

Output to line-Printer <Y or N> ? N

(39,	3)		
FIT	.W09	OGEE	3

FORM PITTSBURGH LOCK FOR OGEE WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE? OFFSET 8'
- \* USE 16 To 18 GAUGE PITTSBURGH MACHINE

FITTER BEGINS AT PITTSBURGH

1	PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 2		
	Al BO G1 M1 X32 IO AO	22.00	700.
3	PUSH AND GUIDE SHEETMETAL, THROUGH PITTSBURGH WITH 3		
	STEPS PF 4 ( 4 5 6 7 )		
	A& BO G1 (M1 XO I3 AO )	1.00	230.
4	REPLACE SHEETMETAL FROM PITTSBURGH TO CART AT		
	PITTSBURGH WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE		
	Al BO G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 1970•

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

22640

Please input file <OGEE.M27> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE Output to line-printer <Y or N> ? N

( 39, 3) FIT ,w09

OGEE w

POSITION SPACERS IN PITTSBURGH LOCKS FOR OGEE WITH HAMMER AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE, OFFSET 8' FITTER BEGINS AT WORKTABLE

1	PLACE	SHI	EETMETAL	FROM	CART	ΑT	WC	RKT.	ABLE	ТО	WORK	TABLE
	WITH	4 S	TEPS F 2									
					Al	В	0	G1	Аб	В0	Р3	A0
2	DOCTET	T/A	CITEDOMET	יאד רמ	חשם אם	al 1	$\Box$	CIII	יבו/ וידו ידו	TAT	[ DTM	mantinati

Al BO G1 A6 BO P3 AO 2.00 220.
2 POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKS3 AT WORKTABLE WITH 3 STEPS F 4

Al BO G1 A6 BO P6 AO 4.00 560.

3 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ).

Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (8) 1.00 360.

4 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL [SPACERS] AT WORKTABLE WITH 4 STEPS F 8

Al BO G1 A6 BO P3 A0 8.00 880.

5 FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) 1.00 1160.

6 MOUE SHEETMETAL FROM WORKTABLE TO ROLLER

Al B0 G1 A54 B0 P1 A0 1.00 570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

26,390

3750.

TOTAL TMU

Please input file <OGEE.M28> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 3) FIT ● w09 OGEE

FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT SHEETMETAL SHOP PER OGEE OFG: 4 07-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE, OFFSET 8'
- \* CHECK RADIUS ON WRAPPERS--
- \* WITH CHEEK RADIUS

FITTER BEGINS AT ROLLER

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH 3STEPS F 2

	Al BO	G1 A6	B0 P3	A0	2.00	220.
2FASTEN BOLT [ROLLS] TO SH	EETMETAL	2 AT ROL	LER 3 S	PINS		
USING HAND F 12						
Al BO G1 Al	B0 P1	F6 A0	BO PO	A0	12.00	1200.
3 PUSH ROLLER-BUTTON AT ROL	LLER PROC	CESS F 24	<u> </u>			
	Al BO	G1 Ml 2	X96 IO	A0	24.00	23760.
4POSITION SHEETMETAL FROM	ROLLER T	O SHEETM	ETAL Al	_		
ROLLER WITH 3 STEPS F 10	C					
	Al BO	G1 A6	B3 P6	A0	10.00	1700.
5 MOVE SHEETMETAL FROM ROI	LLER TO W	ORKTABLE	C			
	A54 B0 C	G1 <i>A54</i> B	3 P1	A0	1.00	1130.

TOTAL TMU 28010.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? FORM RADIUS ON WRAPPERS FOR OGEE

Output to line-printer <Y or N> ? N

( 39, 3)

FIT .W09 OGEE -

FORM RADIUS ON WRAPPERS FOR OGEE WITH ROLL FORMER MACHINE AT SHEETMETAL SHOP
PER OGEE OFG: 4 07-APR-83

1 PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH

NASSCO SHEETMETAL SHAPE #12

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1099
- \* V6-7607
- \* 18 GAUGE GALV. SHEETMETAL
- \* 22'X15'X33'L OGEE, OFFSET 8'
- \* CHECK RADIUS ON WRAPPERS--
- X WITH CHEEK RADIUS

FITTER BEGINS AT ROLLER

3 STEPS F 2		
A1 B0 G1 A6 B0 P3 A0	2.00	220.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL AT ROLLER 3 SPINS		
USING HAND F 12		
A1 B0 G1 Al B0 F1 F6 A0 B0 PO A0	12.00	1200.
3 PUSH ROLLER-BUTTON AT ROLLER PROCESS F 24		
A1 B0 G1 M1 X96 IO A0	24.00	23760.
4 POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT		
ROLLER WITH 3 STEPS F 10		
Al BO G1 A6 B3 P6 A0	10.00	1700 .

A54 B0 G1 A54 B3 P1 A0

TOTAL TMU 28010.

1.00

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help> ?

5 MOVE SHEETMETAL FROM ROLLER TO WORKTABLE

54,400

# Please input file <OGEE.M29>

File Description ? ASSEMBLE CHEEKS & WRAPPERS FOR OGEE	
Output to line-printer <y n="" or=""> ? N</y>	
( 39,3) FIT .W09 OGEE ASSEMBLE CHEEKS AND WRAPPERS FOR OGEE WITH HAMMER AT SHEETMETAL SHOP	ı
PER OGEE  NASSCO SHEETMETAL SHAPE #12  * HULL 414  * DRAWING 501-062  * V-1099  * V6-7607  * 18 GAUGE GALV. SHEETMETAL  * 22'X15'X33'L OGEE, OFFSET 8'  * REMOVE SPACERS FROM PITTSBURGH LOCKS	
FITTER BEGINS AT WORKTABLE  1 PLACE SHEETMETAL FROM FITTER AT WORKTABLE TO WORKTABLE	
WITH 3 STEPS  Al B0 G1 A6 R0 P3 A0 1.00  2 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO	110.
WORKTABLE WITH 3 STEPS F 8 Al E0 G1 A6 B0 P3 A0 8.00 3 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH	880.
LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AND ASIDE PF 4 (4 5 6 7 ) A1 B0 G1 (A1 B0 P0 L6 )A1 E0 P1 A0 (4) 1.00 4 POSITION SHEETMETAL [CHEEK] FROM WORKTABLE TO	320.
SHEETMETAL [WRAPPER] AT WORKTABLE WITH 3 STEPS F 2  A1 E0 G1 A6 B0 P6 A0 2.00	280.
5 MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE A96 B0 G1 A96 B3 P1 A0 1.00 6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 5	1970.
WRIST-TURNS USING HAND F 6 A1 E0 G1 A1 B0 P1 F10 A0 B0 P0 A0 6.00 7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	840.
WORKTABLE WITH 3 STEPS F 24 A1 B0 G1 A6 B0 P6 A0 24.00 8 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES	3360.
USING HAMMER AND ASIDE PF 24 ( 4 5 6 7 ) A1 E0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (24) 1.00 9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 3 STRIKES	1720.
USING HAMMER AND ASIDE PLF 12 ( 4 5 6 7 ) A1 B0 G1 A1 B0 P0 F6 A1 E0 P1 A0 1.00 10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 5	110.
WRIST-TURNS USING HAND PF 6 ( 4 5 6 7 ) Al B0 Gl (Al B0 Pl L10 )A0 B0 P0 A0 (6) 1.00 11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	740.
USING HAMMER AND ASIDE PF 26 ( 4 5 6 7 ) Al B0 Gl (Al E0 P0 F32 )Al B0 Pl A0 (26) 1.00	8620.
12 INSPECT SHEETMETAL AT WORKTBLE 9 POINTS  A0 B0 G0 A0 E0 P0 T10 A0 E0 P0 A0 1.00	100.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W (or H for help) ?

# SHEET METAL SHAPE 12

# 10-1/2 x 6-1/2 to 8" x 3-1/2 x 17" LG. OGEE OFF SE

FAB	22600	13 MIN.
MARK out	25930	15 MIN.
WELD	30860	19 MIN.
TOTAL TMU	79390	48 MIN.

File Description ? MARK OUT CHEEKS FOR OGEE OFFSET Output to line-printer <Y or N> ? N (39, 3).W09 .M01 OGEE FIT MARK OUT SHEETMETAL FOR OGEE OFFSET WITH AWL AT SHEETMETAL SHOP OFG: 4 06-APR-83 NASSCO SHEETMETAL SHAPE #12 \* U.S.S. TUSCA \* WORK ORDER 3090-432 \* PC. 13 \* SKETCH 753 ,060 ALUMINUM \* 10 1/2'X6 1/2' TO 8X3 1/2' OGEE \* OFFSET 17'L \* MARK OUT CHEEKS USING TEMPLATE FITTER BEGINS AT WORKTABLE 1 PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 2.00 A1 E0 G1 A3 B0 P3 A0 160. 2 POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 2 A1 E0 G1 A3 B0 P6 A0 2.00 220. 3 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) (A1 B0 P1 R16 )A1 E0 P1 A0 A1 B0 G1 (6) 1.00 1120. 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT 'WORKTABLE WITH 3 STEPS F 8 8.00 1120. A1 B0 G1 A6 B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING -HAMMER AND ASIDE PF 8 ( 4 5 6 7 ) BO PO F3 )A1 BO P1 A0 Α1 B0 G1 (A1 (8) 1.00 360. SHEETMETAL 6 REPLACE WEIGHTS TEMPLATE ΑТ WORKTABLE TO WORKTABLE WITH 3 STEPS F-2--2.00 Α1 BO G1 A6 BO P3 A0 220. 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2 PO G1 A6 B0 P3 A0 2.00 220. Α1 8 MARK CUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) (A1 B0 P1 R16 )A1 B0 P1 A0 E0 G1 1.00 1120. (6) 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE I DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 82 ( 4 5 6 7) **BO G1** (A1 E30 P1 R3 )A1 B0 P1 A0 (82) 1.00 **A1** 4140. 10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 ( 4 5 6 7

A1 B0 G1 (A1 B0 P1 R3 )A1-B0 P1 A0 (58) 1.00

2940.

Tupe D, EM; CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? "r

11620

#### Please input File <OGEE.M02>

#### DESCRIPTION MARK OUT WRAPPERS FOR OGEE

OUTP	put to line-Printer <y n="" or=""> ? N</y>	
FIT	39,3) .W09 OGEE .M02 MARK out wrappers for ogee offset with awl AT SHEETMETAL SHOP OGEE OFG: 4 06-APR-83	
PER	OGEE  NASSCO SHEETMETAL SHAPE # 1 2  * U.S.S. TUSCA  * WORK ORDER 3090-432  * PC. 13  * SKETCH 753  * ,060 Aluminum  * 10 1/2'X6 1/2' TO 8X3 1/2 OGEE  * OFFSET 17'L  * FITTER BEGINS AT WORKTABLE	
	1. PLACE TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH STEPS F 2	
2	A1 B0 G 1 A6 E0 P3 A0 2.00 POSITION 2 WEIGHTS FROM WORKTABLE TO SHEETMETAL AT	220.
5	WORKTABLE WITH 6 STEPS F 2  Al B0 G1 A6 B0 P6 A0  MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE	280.
	5 DIGITS USING AWL AND ASIDE PF 6 ( 4 5 6 7 ).  Al B0 G1 (Al B0 P1 R16 )A1 B0 P1 A 0 (6) 1.00  POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1120.
5	WORKTABLE WITH 3 STEPS F 12  A1 B0 G1 A6 E0 P6 A0 12.00  FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	1680.
6	HAMMER AND ASIDE PF 12 ( 4 5 6 7)  A1 B0 G1 (A1 B0 P0 F3 )A1 B0 F1 A0 (12) 1.00  REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE	520.
Ů	WITH 3 STEPS F 2  Al EO G1 A6 B0 P3 A0 2.00	220.
7	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	222
8	A1 E0 G1 A6 B0 F3 A0 2.00 MARK OUT LINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	220.
9	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (6) 1.00 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1120.
10	ASIDE PF 51 ( 4 5 6 7 ) F 2  A1 B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (51) 2.00  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 58 ( 4 5 6 7	5180.
	A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (58) 1.00	2940.

11 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE

Al BO G1 A6 BO P3 AO 1.00 110.

WITH 4 STEPS

TOTAL TMU 14310.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? SHEAR SHEETMETAL FOR OGEE

Output to line-printer (Y or N> ? N

(39, 3)

FIT .W09 OGEE .M03

SHEAR SHEETMETAL FOR OGEE OFFSET WITH SMALL 8 FT. SHEAR AT SHEETMETAL SHOP

PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* U.S.S. TUSCA
- \* WORK ORDER 3090-432
- \* PC. 13
- \* SKETCH 753
- \* .060 ALUMINUM
- \* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE
- \* OFFSET 17'L

FITTER BEGINS AT SMALLSHEAR

I POSTITION	SH	F.FT.MF.	TA.	L FROM	CAR:	I. A.I.	SMA	LLSt	1EAR	.I.O	
SHALLSHE	AR	WITH	4	STEPS							
					7.1	Π.	$\alpha$ 1	7 (	D O	DC	70

	-									
	A1	E0	G1	Аб	в0	Рб	A0	1.00	140.	
2 PUSH FOOTPEDAL AT SMALLS	SHEAR	PRO	CESS							
	-A1	в0	G1	М1	Хб	ΙO	A0	1.00	90.	
J POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH										
3 STEPS F 11										
	A1	в0	G1	Аб	в0	Рб	A0	11.00	1540.	
4 DUCH FOOTDFDAT, AT CMALLS	סגיזנו	DDOO	つけつつ	r 1	1					

- 4	PUSH FOOT	CPEDAL	AT SN	(IALLSH	EAR	PROC	CESS	F.	11					
					A1	в0	G1	M1	Хб	ΙO	A0	1	1.00	990.
		arrn n m »	40ma = 0		OTT 7	T T OTT		m-0	~ ~ ~ ~ ~	7				

J REPLACE SHEETMETAL2 FROM SHALLSHEAR TO CART.AT SMALLSHEAR WITH 16 STEPS

			A 1	В0	G1	A32	В0	P3 A0	1.00	370.
0	MOVE CART	WITH SHEETMETAL2						WORKTABLE P1 A0	1.00	730.

TOTAL TMU 3860.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help>. ?

File Description ? SHEAR RADIUS FOR OGEE

Output to line-printer <Y or N> ? N

(39, 3)

OGEE .M04 FIT .W09

FROM SHEETMETAL FOR OGEE OFFSET RADIUS WITH LAPOUT MACHINE AT SHEETMETAL SHOP>

PER OGEE NASSCO SHEETMETAL SHAPE #12
\* U.S.S. TUSCA

\* WORK ORDER 3090-432

\* PC. 13

\* SKETCH 753

\* .060 ALUMINUM

\* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE

\* OFFSET 17'L

FITTER BEGINS WORKTABLE

1	rlale	SHEETHEIHL	SHEETMETAL	CART	A'I'	WORK	T'ABLŁ	TO	WORK'	L'ABLE	
	MIIM	3 31EF5 -	А	.1 в	0	G1	A6	в0	Р3	A0	

		A1 B0	G1	Аб	В0	Р3	A0	1.00	110.
2 MOVE	UNISHEAR2 FROM	TOOLROOM TO	WORK	TABLE	i				
		A96 B0	G1	A96	B6	P1	A0	1.00	1970.
3 OPERATI	E UNISHEAR AT WO	RKTABLE PROCE	ESS	F 5					
		A1 B0	G1	MO	X 1 7	3 1 0	A 0	5.00	0950.
4 FASTE	N ( FLATTEN) CO	RNERS ON SHI	EETME	TAL	AT W	ORK	TABLE 1		
STRI	IKE USING HAMN	IER AND ASII	DE PF	16 (	4 5	6 7	)		
	A1 B0 G1	( <b>A 1 B 0</b> P 0	F3	)A1	В0	Ρ1	A0 (10)	1.00	480.
5 REPLA	ACE SHEETMETAL2	FROM WORKTA	ABLE '	TO CA	RT AT	T WO	RKTABLE		
WITI	H 4 STEPS								
		A1 B0	G1	Аб	В0	Р3	A0	1.00	110.
6 MOVE	CART WITH SHEET	THETAL2 FROM			TO	LAP	OUT		
		A1 B0	G1	A54	В0	Ρ1	A0	1.00	570 •

TOTAL TMU 12490.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

16,350

OFG: 4 06-APR-83

#### Tire Description : FORTOGEE?

Output to line-printer <Y or N> ? N

 $f^{39}r^{3}$  .  $w^{0}$  9

OGEE .M05

FORM LAPOUT FOR OGEE OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP

\* U.S.S. TUSCA

- \* WORK-ORDER 3090-432
- \* PC. 13
- \* SKETCH 753
- \* ,060 ALUMINUM
- \* 10 1/2'X6 1/4' TO 8'X3 1/2' OGEE
- \* OFFSET 17'L

FITTER BEGINS AT LAPOUT

- 1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4
  STEPS F 4
  - A1 B0 G1 A6 B0 P3 A0 4.00
- 2 PUSH LAPOUT SWITCH PROCESS
- A1 B0 G1 M1 X16 I0 4.00 760.
- 3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH
  - 4 STE<del>PS P</del> 4
- A1 B0 G1 A6 B0 P3 A0 4.00 4.40.
- 4 MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO WORKBENCH (  ${\tt HAND-ROLLER}$  )
  - A1 B0 G1 A24 P1 A0 1.00 300.

TOTAL TMU 1940.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FORM OGEE

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 OGEE MOGEE

FORM SHEETMETAL FOR OGEE WITH HAND OPERATED ROLLER AT SHEETMETAL

SHOP

PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

\* U.S.S. TUSCA

\* WORK ORDER 3090-432

\* PC. 13

\* SKETCH 753

\* .060 ALUMINUM

\* 10 1/2'X6 1/4' TO 8'X3 1/2'

FITTER BEGINS AT WORKBENCH

1	PLACE	SI	HEETME?	ΓΑΙ	2	FROM	CART	ΑT	WORKBENCH	TO	WORKBENCH
	WITH	3	STEPS	F	4						

A1 E0 G1 A6 D0 F3 A0	4.00	440.
2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER 5		
SPINS USING HAND F 3		
A1 B0 G1 A1 E0 P1 F10 A0 D0 P0 A0	3.00	420,
3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 20	3.00	120 /
A1 30 G1 M6 X0 I0 A0	20.00	1600.
4 REPLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO	20.00	1000.
CART AT WORKBENCH WITH 4 STEPS		
CARI AI WORRBENCH WIIH 4 SIEPS		
A1 E0 G1 A6 B0 F3 A0	1.00	110.
3 MOVE CART WITH SHEETMETAL2 FROM HAND-ROLLER AT		
WORKBENCH TO PED.GRINDER		
A1 B0 G1 A32 B0 P1 A0	1.00	350.
AI DO GI AJZ DO FI AO	1.00	350.

TOTAL TMU 2920.

TBPe D, EM, CTTENTEXTL, LD, LS, M, T, W Kor"H for help> ?'

File Description ? CLEAN OGEE BEFORE WELDING

Output to line-printer <Y or N> ? N

(39, 3)

FIT .W09 OGEE .M07

CLEAN OGEE FOR WELDING WITH PEDESTAL GRINDER AT SHEETMETAL SHOP PER OGEE OFG: 4 06-APR-83

NASSCO SHEETMETAL SHAPE #12

- \* U.S.S. TUSCA
- \* WORK ORDER 3090-432
- \* PC. 13
- \* SKETCH 753
- \* .060 ALUMINUM
- \* 10 1/2'X6 1/4' TO 8'X3 112' OGEE
- \* OFFSET 17'L

FITTER BEGINS AT PED.GRINDER

1	PLACE SHEETMETAL2 FROM CART AT PED.GRINDER TO PED.GRINDER WITH 4 STEPS F 4		
	A1 E0 G1 A6 B0 F3 A0	4.00	440.
2	PUSH GRINDER-BUTTON PROCESS F 4		
	A1 E0 G1 M1 X6 I0 A0	4.00	360.
3	REPLACE SHEETMETAL2 FROM PED.GRINDER TO CART AT		
	PED.GRINDER WITH 4 STEPS		
	A1 E0 G1 A6 B0 F3 A0	1.00	110.
4	MOUE CART FROM PED.GRINDER TO WORKTABLE		
	A1 B0 G1 A42 E3 P1 A0	1.00	480.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

22,600

TOTAL TMU

1390.

Please input file <OGEE.M08> ?

File Description ? WELD OGEE OFFSET

Output to line-Printer <Y or N> ? N

(39,101)

WELD .W01 OGEE .M08

WELD OGEE OFFSET WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH PER OGEE OFFSET OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 12

- \* U.S.S. TUSCALOOSA
- \* WORK ORDER:3090-432 PC
- \* 13 SK-75
- \* ,060 ALUMINUM 10 1/2X6 1/4T08X3 1/2
- \* --OGEE OFFSET 17' L WITH 6'RADIUS & 8'-
- \* --RADIUS
- \* WELDING DONE IN WELD AREA BOOTH
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
Т	AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	2.00	220.
_	A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	_,,,	
_	WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 E0 P3 A0	2.00	220,
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 M1 X0 I0 A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES		
	TO ON AT WELDMACHINES		
	Al BO G1 M1 XO IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1		
	WRIST-TURN USING HAND		
_	A1 B0 G1 A1 B0 F1 F3 A0 E0 P0 A0	1.00	70.
./	WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT		
	WELDMACHINES TO ON AT WELDMACHINES	1 00	60
0	A1 B0 G1 M3 X0 I0 A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE		
	TO SHEETMETAL ASSEMBLY AT WELDTABLE  A3 B3 G1 A1 E0 P6 A0	1.00	140.
a	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS	1.00	140.
)	A1 E0 G1 M1 X10 I0 A0	1.00	130.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL	1.00	130.
10	ASSEMBLY AT WELDTABLE F 11		
	A1 B0 G1 A1 B0 P6 A0	11.00	990.
11	FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 11		
	A1 B0 G1 M1 X0 I0 A1	11.00	440.
_	12 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETL		
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 11		
	A1 B0 G1 A1 B6 P6 A0	11.00	1650.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 23		

#### OGEE MO - 8

A1 B0 G1 M6 X81 I0 A0 23.00 204700.  14 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 11  A1 B0 G1 M1 X0 I0 A1 11.00 440.  15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10  ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF
A1 B0 G1 M1 X0 I0 A1 11.00 440. 15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
15 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10
ADM CODOVEC ICING MIDEDDICH AO MELDOADIE AND ACIDE DE
AKM-SIKOKES OSING WIKEBKOSH AI WELDIABLE AND ASIDE PF
23 (4567)
A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (23) 1.00 2800.
16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT
WELDTABLE WITH 4 STEPS
A1 B0 G1 A6 B0 F3 A0 1.00 110.
17 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE
A1 E0 G1 A131B0 P1 A0 1.00 1340.
TOTAL TMU 30860.

File Description ? WELD OGEE OFFSET
Output to line-Printer <Y or N> ?

# SHEEF METAL SHAPE # 13

13"x6" X 20" 1/2" LG OFFSET OFFSET 6"1/2"

FAB. 40,590 24. MIN.

MARKOUT 27,240 16. MIN.

TOTAL 67830 41 MIN.

#### Please input file <0FFSET.M01> ?

(Final

#### File Description ? MARK OUT CHEEKS FOR OFFSET

#### Output to line printer <Y or N> ? N

	•		
FIT	OFFSET, M01  MARK OUT SHEETMETAL FOR OFFSET CHEEKS WITH AWL AT SHEETM OFFSET  NASSCO SHEETMETAL SHAPE \$13  * HILL 418  * DRAWING 501-292  * V2-92008  * VS-1922  * 20 GAUGE GALV. SHEETMETAL  * 1.3'X6'X20 1/2'L (OFFSET 6 1/2')  * MARK CHEEKS USING TEMPLATE FITTER BEGINS AT WORKTABLE		IOP
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	0 0à	222
2	A1 B0 G1 A6 B0 P6 A0 PLACE 2 WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 4 STEPS F 2		280
3	A1 B0 G1 A6 B0 P3 A0 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 9 ( 4 5 6 7 )	2.00	220
4	A1 BO G1 (A1 PO P1 R16 )A1 BO P1 A0 (9) POSITION CPUNCH TO SHEETMETAL AT WORKTABLE WITH 4 STEPS $F = 8$	1.00	1660,
5	A1 B0 G1 A6 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	8.00	1120
6	A1 F0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) REPLACE 2 WEIGHTS FROM TEMPLATE TO WORKTABLE WITH 4	1.00	3 <b>60</b> (
7	STEPS A1 B0 G1 A6 B0 P3 A0 REPLACE TEMPLATE FROM SHEETMETAL TO WORKTABLE WITH 3	1.00	110
8	STEPS  A1 B0 G1 A6 E0 P3 A0  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	110
9	USING REDPEN AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 ) Al BO Gl (Al PO Pl R16 )Al BO Pl AO (8) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1480.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND HOLD PF 42 ( 4 5 6 7 )	1 00	2120.

WORKTABLE

Al BO Gl Al BO Pl AO 1.00 40.

11 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT
USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7

Al BO Gl (Al BO Pl R3 )Al BO Pl AO (52) 1.00 2640.

10 FITTER MOVE BLACKPEN FROM FITTER TO SHEETMETAL AT

A1 B0 G1 (A1 B0 P1 R3 )A0 B0 P0 A0 (42) 1.00 2120.

Type D.EM.CT.EW.EX.LslDsLS.M.T.W <or H for help> ?

Please input file <OFFSET, M02> ?

File Description ? MARK OUT WRAPPERS FOR OFFSET

#### Output to line printer <Y or N> ? N

( 39, 3) FIT .W08 OFFSET,M02	
MARK OUT SHEETMETAL FOR OFFSET WRAPPERS WITH AWL AT SHEETM	ETAL
SHOP PER OFFSET  NASSCO SHEETMETAL SHAPE #13.  * HULL 418  * DRAWING 501 292  * V2-92008  * V6 .1922  * 20 GAUGE GALV. SHEETMETAL  * 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')  * MARK OUT WRAPPERS WITHOUT TEMPLATE ATE FITTER BEGINGS AT WORKTABLE	83
1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASCDE PF 8 ( 4 5 6 7 )	00 07/0
A1 BO 61 (A1 BO P1 M32 )A1 BO P1 A0 (C) 1 2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 8 ( 4 5 6 7 )	,00 2760.
	,00 440.
WORKTABLE F 7	,00 630.
4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 7 ( 4 5 6 7 )	,,,,,
5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	,00 1300.
AT WORKTABLE F 8 A1 BO G1 A1 BO P6 A0 8 6 MARK CORNERS FROM CORNER TEMPLATE TO SHEETMETAL AT	720,
WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7	
A1 BO G1 (A1 BO P1 R6 )A1 BO P1 A0 (8) 1 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	.000 680.
A1 NO G1 A1 BO P6 A0 G B FASTEN CPUNCH TO BHEETMETAL AT WORKTBLE 1 STRIKE USING	720.
HAMMER AND ASIDE PF 8 ( $4$ 5 $6$ 7 ) A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (B) $_{1}$	.00 360.
9 MARK OUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 )	
A1 BO 01 (A1 BO P1 R13)A1 BO P1 A0 (11) 1 10 MARK CONSTRUCTION INFORMATION ON SHEFTMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AND HOLD PF 80 ( 4 5 6 7 )	.00 2020.
A1 RO G1 (A1 BO P1 R3 )AO BO PO AO (80) 1 11 MARK IBENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	4020.
USING BLACKPEN AND ASIDE PF 52 ( $4$ 5 $6$ 7 ) at 80 01 (at 80 Pt R3 )at 80 Pt A0 (52) $_{ m 1}$	,000 2440.

## 12 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS

A1 BO 61 A6 BO P3 AO 1.00 110. 13 MOVE CART WITH SHEETNETAL2 FROM WORKTABLE TO SMALLSHEAR A1 BO 61 A67 BO P1 AO 1.00 700.

TOTAL THU 17100.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?

#### Please input file (OFFSFT. #03> ?

#### 'ile Description ? SHEAR SHFETMETAL FOR OFFSET

#### Output to line printer <Y or N> ? N

( 39, 3)

FIT .W08 OFFSET:M03

SHEAR SHEETMETAL FOR OFFSET WITH SMALL SHEAR AT SHEETMETAL SHOP PER OFFSET OFG: 4 25 MAR-83

NASSCO SHEETMETAL SHAPTE #13

- \* HULL 418
- \* DRAWING 501 292
- \* V2-92008
- \* \/6--1922
- \* 20 GAUGE GALV. SHEETMETAL
- \* 13'X6'X20 1/2'1 OFFSET (OFFSET 6 1/3')
- \* SHEAR 4-1'STRIPS FRO PITTSHBURGH SPACERS

FITTER BEGINS AT SMALL.SHEAR

1	POSITION SHEETMETAL2 FROM C	'ART	CART	AT	SMALL	SHEAR	TO			
	SMALLSHEAR WITH 4 STEPS									
		A1	В0	G1	Аб	В0	Рб	A0	1.00	140.
2	PUSH FOOTPEDAL. AT SMALLS	HEAR	PRO	CES	S					
		A1	в0	G1	M1	Хб	ΙO	A0	1.00	90.
3	POSITION SMEETMETAL. 2 FRO	OM S	SMALL	SHE	AR TO	SMAL	LSHE	AR F		
	1 0									
		A1	в0	G1	A1	в0	Pб	A0	10.00	900.
4	PUSH FOOTPEDAL AT SMALLS	HEAR	PRO	CES	S F 1	0				
		A1	в0	G1	M1	X1	ΙO	A0	10.00	900.
5	REPLACE SHEETMETAL2 FROM	SMA	LLSH	CAAR	TO C	CART A	T			
	SMALLSHEAR WITH 4 STEPS	F 4	:							
		A1	в0	G1	<b>A6</b>	B0	P3	Α0	4.00	440.
6	MOVE CART WITH SHEETMETA	L2 F	ROM	SMA	LLSHE	AR TO	O WO	RKTAB	LE	

Al **80 G1 A67** B3 P1 A0

TOTAL TMU 3200.

1.00

730.

Type D:EM:CT:EW:EX:L:LD:LS:M:T:W <or H for help> ?

700 + 3200 = 3900

### Dutput to line-printer <Y or N> ? N

FIT .W11 OFFSET.M04 SHEAR SHEETMETAL FOR OFFSET RADIUS & CORNERS WITH UNI-SHEAR AT SHEETMETAL SHOP PER OFFSET OFG: 4 08-JUL-83  NASSCO SHEETMETAL SHAPE #13  * HULL 418.  * DRAWING 501-292  * V2-92008  * V6-1922  * L20 GAUGE GLAV. SHEETMETAL  * 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')  * BEND EDGE ON CHEEK CORNERS FOR EDGER FITTER BEGINS AT WORKTABLE	
1 PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P3 A0 2.00 2 MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	220,
A96 B0 G1 A96 B3 P1 A0 1.00	1970.
3 OPERATE UNISHEAR PROCESS F 5 A1 B0 G1 M6 X173I0 A0 5.00	9050.
4 FASTEN ( FLATTEN ) CORNERS ON SHEETMETAL AT WORKTABLE 3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
STRIKES USING HAMMER AND ASIDE PF 16 ( $4$ 5 $6$ $7$ )  A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16) $1.00$	1160.
5 GRIP AND TWIST SHEETMETAL [CHEEK EDGE] AT WORKTABLE 1	
TWIST USING VISEGRIPS AND ASIDE PF 4 ( $4$ 5 $6$ 7 ) A1 B0 G1 (A1 B0 P3 C1 )A1 P0 P1 A0 (4) 1.00	240.
6 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	
A1 B0 G1 A6 B0 P3 A0 2.00	220.
7 MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO EDGER A1 E0 G1 A67 B0 P1 A0 1.00	700.
TOTAL TMU	13560.

Type D, EH, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <OFFSET.+M05> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET Output to line-printer <Y or N> ? N

(39, 3)

PER OFFSET

FIT .W08 OFFSET.M05

FORM SHEETMETAL FOR 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER AT SHEETMETAL SHOP

NASSCO SHEETMETAL SHAPE #13

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1922
- \* 20 GAUGE GALV. SHEETMETAL
- \* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
- \* BEGIN EDGES AT PREVIOUS BENT UP CORNERS

FITTER BEGINS AT EDGER

1	PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	POSITION SHEETMETAL2 FROM EDGER TO EDGER WITH 4 STEPS	1 00	
_	A1 B0 G1 A6 B0 P6 A0 OPERATE EDGER-SWITCH PROCESS F 4	1.00	140.
	Al BO G1 M6 X42 IO AO	4.00	2000.
4	PUSH AND GUIDE SHEETMETAL2 THROUGH EDGER AT EDGER WITH 3 STEPS F 4		
	A6 B0 G1 M1 X0 I3 A0	4.00	440.
5	REPLACE SHEETMETAL2 FROM EDGER TO CART AT EDGER WITH 4		
J	STEPS F 2	2.00	
	A1 B0 G1 A6 B0 P3 A0 HOVE CART WITH SHEETMETAL2 FROM EDGER TO PITTSBURGH	2.00	220.
6	A1 B0 G1 A16 B0 P1 A0	1.00	190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help?> ?

20,670

3210.

TOTAL TMU

OFG: 4 25-MAR-83

File Description ? FORM PITTSBURGH LOCKS ON WRAPPER FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)

FIT .W11 OFFSET.M06

FORM SHEETMETAL FOR OFFSET LOCKS WITH PITTSBURGH AT SHEETMETAL

SHOP

PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1922
- \* 20 GAUGE GALV. SHEETMETAL
- \* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
- \* BEFORE ROLLING RADIUS POSITION SPACERS
- \* POSITION SPACERS IN LOCKS

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2  $\,$ 

A1 B0 G1 A6 B0 P3 A0 2.00 220.

2 PUSH PITTSBURGH-BUTTON PROCESS F 2

A1 B0 G1 M1 X32 I0 A0 2.00 700.

3 PUSH AND GUIDE SHEETMETAL 2 THROUGH PITTSBURGH WITH 4 STEPS F 4

A6 B0 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT

PITTSBURGH WITH 4 STEPS F 2

A1 B0 G1 A6 B0 P3 A0 2 . 0 0 220.

5 MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2180,

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

22850

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET
Output to line-printer <Y or N> ? N

(39, 3)

FIT \*W11

OFFSET.M07

POSITION SHEETMETAL FOR SPACERS IN OFFSET PITTSBURGH LOCKS WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1922
- \* 20 GAUGE GALV. SHEETMETAL
- \* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
- \* POSITION SPACERS IN PITTS BEFORE ROLLING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN ( FLATTEN ) SHEETMETAL CORNERS AT WORKTABLE 3		220.
	STRIKES USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)	1.00	600.
3	PLACE SHEETMETAL ( SPACERS 1 FROM WORKTABLE TO		000.
	SHEETMETAL AT WORKTABLE F 4		

				A1	В0	G1	A1	В0	Р3	A0	4.	.00	240
_	FASTEN	SHEETMETAL	TΟ	SHEETM	ETAT.	ΔТ	WORK'	TARLE	1 1	STRIKE			

USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 360.
5 PLACE MASKING TAPE FROM WORKTABLE TO SHEETMETAL AT

WORKTABLE F 4

Al B0 Gl Al B0 P3 A0 4.00 240.
6 MOVE SHEETMETAL2 (THROAT & HEEL ) FROM WORKTABLE TO
HAND-ROLLER AT WORKBENCH
Al P0 Gl A67 B3 Pl A0 1.00 730.

TOTAL TMU 2390.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

25240

#### File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N>? N

(39,3)

FIT .,W11 OFFSET.M08

FORM . SHEETMETAL FOR RADIUS ON OFFSET WRAPPERS WITH

HAND OPERATED ROLLER AT SHEETMETAL SHOP PER OFFSET

NASSCO SHEETMETAL SHAPE #13

- \* HULL 418
- \* DRAWING 501-292
- \* V2-92008
- \* V6-1922
- \* 20 GAUGE GALV. SHEETMETAL
- \* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')
- \* ROLL UP RADIUS WITH SPACERS IN PITTS.

FITTER BEGINS AT WORKBENCH

1	PLACE	SHEETMETAL2	FROM	FITTER	AT	WORKBENCH	TO	WORKBENCH
	${\tt WITH}$	5 STEPS F 2						

	A1 B0 G1 A10 B0 P3 A0	2.00	300.
2	FASTEN BOLT ( ROLLS )TO SHEETHETAL2 AT HAND-ROLLER AT		
	WORKBENCH 5 SPINS USING HAND F 3		
	A1 B0 G1 k1 B0 F1 F10 A0 B0 P0 A0	3.00	420.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REVS USING HAND F 10		
	A1 B0 G1 M6 X0 I0 A0	10.00	800.
4	LOOSEN BOLT ( ROLLS ) TO SHEETMETAL2 AT HAND-ROLLER AT		
	WORKBENCH 5 SPINS USING HAND F 2		
	A1 B0 G1 A1 B0 F1 L10 A1 B0 P0 A0	2.00	280.
5	MOVE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO		
	WORKTABLE		
	A1 B0 G1 A67 B3 P1 A0	1.00	730 .

TOTAL TMU 2530.

OFG: 4 08-JUL-83

Type D, EM, CT EW, EX, L, LD, LS, M, T, W <or H for help) ?

Please input file <OFFSET.M09> ?

File Description ? ASSEMBLE OFFSET

Output to line-printer <Y or N> ? N

(39, 3)

FIT .WO8 OFFSET.MO9

ASSEMBLE SHEETMETAL FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP PER OFFSET OFG: 4 28-MAR-83

NASSCO SHEETMETAL SHAPE #13

\* HULL 418

\*Y DRAWING 501-292

\* V2-92008

\* V6-1933

\* 20 GAUGE GALV. SHEETMETAL

\* 13'X6'X20 1/2'L OFFSET (OFFSET 6 1/2')

\* REMOVE SPACERS FROM PITTSBURGH LOCKS

FITTER BEGINS AT WORKTABLE

1	REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE AND ASIDE TO WORKTABLE F 8		
	A1 B0 G1 A1 B0 F3 A0	8.00	480.
2	LOOSEN SHEETMETAL ( STRIPOS ) FROM SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 L3 )A1 B0 F1 A0 (8)	1.00	360.
3	MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 F1 A0	1.00	1970 •
4	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 4 STEPS		
_	A1 B0 G1 A6 B0 F6 A0	1.00	140 •
5	FASTEN BARCLAMP TO ELBOW AT WORKTABLE 3 WRIST-CRANKS		
	USING HAND F 6 A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0	6 00	600.
6	FASTEN SHETTINGTOOL TO SHEETMETAL AT WORKTABLE 1 STRIKE	0.00	000.
Ū	USING HAMMER AND ASIDE F 25		
		25.00	2000.
7	FASTEN SHEETMETAL TO SHEETMETAL AT WOKRTABLE 3 STRIKES		
	USING HAMMER AND ASIDE PF 25 ( 4 5 6 7 )	1 00	1500
_	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 F1 A0 (25)	1.00	1790 •
8	LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3		
	WRIST-CRANKS USING HAND AN BO G1 BO P1 L6 AO BO PO AO	1.00	100.
9	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	100.
	USING HAMMER AND ASIDE PF 18 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (18)	1.00	5980.
10	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS		4.0.5
	A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.

TOTAL TMU 13520.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W (or H for help) ? 41.290AB25 MA,

41,290 MB 25 MN.

10,140 MD. 6 MN 2

17,100 MD. 10 MN. 3 16 MN

- 700 MV. 41 SEC

67,830 Tot. 41 MN.

SHEEF METAL SHAPE 13

12"x 20" x 36"16 OFFSET- OFFSET 8" .

FAB- 93510 56 MIN. MARKOUT. 12,730 8 MIN. Total 116,246 70 MIN.

#### File Description ? MARK OUT CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

(	39,	1)
١.	J ,	/

FIT .W11 OFFSET.M60

MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP
PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'X20'X36'L OFFSET
- \* OFFSET 8'
- \* MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

### 1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2

A1 B0 G1 A1 B0 P6 A0 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	2.00	180.
A1 B0 G1 A6 B0 P6 A0  3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6	_	840.
A1 B0 G1 (K1 E0 P1 R16 )A1 B0 P1 A0 4 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTAB F 8		1120.
A1 B0 G1 A1 B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL A1 WORKTABLE 1 STRIKE USI: HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	8.00 NG	720.
A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTAB: WITH 3 STEPS F 6	( - )	360.
A1 B0 G1 A6 B0 P3 A0 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 2	6.00	660.
A1 B0 G1 A1 B0 P3 A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	2.00	120.
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) A1 E0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 9 HARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	(6) 1.00	1120.
ASIDE PF 44 ( 4 5 6 7 )  Al EO G1 (Al IBO P1 R3 )Al BO P1 AO (4  10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGITUSING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6	r	2240.
Al B0 G1 (Al E0 P1 R3 )Al B0 P1 A0 (	52) 1.00	2640.

TOTAL TMU

10000.

Output to line-printer < Y	or N> ? N	
( 39, 1)  FIT *W11  MARK OUT WRAPPERS FOR  PER OFFSET  NASSCO SHEETMETAL  * 18 GAUGE GALV. SHEE  * 12'X20'X36'L OFFSET  * OFFSET 8'	TMETAL	
	RKTABLE SHEETMETAL AT WORKTABLE USING	
A1 B0 G1 (A 2 MARK DIMENSIONS ON SHE	LE AND ASIDE PF 6 ( 4 5 6 7 ) 1 B0 P1 M32 )A1 B0 P1 A0 (6) ETMETAL AT WORKTABLE 1 DIGIT E AND ASIDE PF 4 ( 4 5 6 7 )	1.00
A1 B0 G1 (A	A1 B0 P1 R3 )A1 B0 P1 A0 (4) FROM WORKTABLE TO SHEETMETAL AT	1.00
	A1 B0 G1 A1 B0 P6 A0	4.00 360.
USING AWL AT WORKTABLE A1 B0 G1 (A1 5 POSITION CORNER TEM	AND ASIDE PF 4 ( 4 5 6 7 ) BO P1 R3 )A1 BO P1 A0 (4) IPLATE FROM WORKTABLE TO SHEETMETAL	1.00
	A1 B0 G1 A1 B0 P6 A0 RNER TEMPLATE AT WORKTABLE 2 RKTABLE AND ASIDE PF 8 ( 4 5 6 7	8.00 720.
) A1 B0 G1 (A1 7 MARK CUT LINES ON SHEETI	BO P1 R6 )A1 BO P1 AO (8) METAL AT WORKTABLE 5 DIGITS	1.00
	BLE AND ASIDE PF 11 ( 4 5 6 7 ) BO P1 R16 )A1 BO P1 AO (11) MATION ON SHEETMETAL AT	1.00
ASIDE PF 44 ( 4 5 6 7 ) A1 B0 G1 (A1	BO P1 R3 )A1 BO P1 A0 (44)	1.00 2240.
USING BALCKPEN AT WORK	SHEETMETAL A-f WORKTABLE 1 DIGIT FABLE AND ASIDE PF 52 ( 4 5 6 7	2640.
	BO P1 R3 )A1 BO P1 A0 (52) WORKTABLE TO CART AT WORKTABLE	1.00
11 MOIIE CADT WITTU CHEETMET	A1 B0 G1 A6 B0 P3 A0	1.00

A1 R0 G1 A67 B0 P1 A0

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help) ?

11 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR

1.00

TOTAL TMU

700.

12030.

#### File Description ? SHEAR SHEETMETAL FOR OFFSET

#### Output to line-printer <Y or N>? N

(39, 1)

FIT .W11 OFFSET.M62

SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL

SHOP

PER OFFSET OFG: 4 10-MAY-83

NASSCOS SHEETMETAL SHAPE 13

\* 18 GAUGE GALV. SHEETMETAL

\* 12'X20'X36'L OFFSET

\* OFFSET 8'L

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F--

						$A \perp$	B0	GΙ	Α6	В0	Р6	A0		1.00		14U.	İ-
2	PUSH E	FOOTP1	EDAL .	AT S	SMALLSH	IEAR	PRO	CESS	F 2								
						A1	В0	G1	Н1	Хб	ΙO	A0		2.00		180.	
3	POSITI	ION SI	HEETM	ETAI	12 FROM	I SM	ALLS	HEAR	TO	SMAL:	LSHE.	AR F	16				
						A1	E0	G1	A1	в0	Рб	A0		16.00	1	440.	
					~ ~			~-~~		_							

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 16 A1 B0 G1 M1 X6 I0 A0 16.00 1440.

5 REPLACE SHEETMETAL2 FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 10 STEPS F 2

A1 B0 G1 A16 B0 P3 A0 2.00 420.

6 MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE,
A1 B0 G1 A67 B3 P1 A0 1.00 7 3 0.

TOTAL TMU 4350 .

Type D, EM, CT, EW, EX, L, LD, LS M, T, W <or H for help?> ?

17080

#### File Description ? SHEAR RADIUS ON CHEEKS FOR OFFSET

Output to line-printer <Y or N> ? N

SHOP PER O			
	LACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE		
	A1 B0 G1 A6 B0 P3 A0  OVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	2.00	220.
2	A96 E0 G1 A96 B3 P1 A0	1.00	1970.
3 OI	PERATE UNISHEAR AT WORKTABLE PROCESS F 12 A1 R0 G1 M6 X173I0 A0	12.00	21720
5 F <i>A</i>	JT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  A1 B0 G1 (61 B0 P3 C3 )A1 B0 P1 A0 (16)  ASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTARLE 3	1.00	1160.
6 GF	STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )  Al BO G1 (A1 BO FO F6 )A1 BO P1 AO (16) RIP AND TWIST SHEETMETAL [CHEEK EDGE CORNER] 1-TWIST USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7	1.00	1160.
	A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) EPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	240.
8 MC	A1 B0 G1 A6 B0 P3 A0 DUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT	2.00	220.
0 140	Al B0 G1 A54 B0 P1 A0	1.00	570.
	TOTAL T	MU	27260.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

File Description ? FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET
Output to line-printer (Y or N> ? N

( 39, 1)

FIT .W11 OFFSET.M64

FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFSET WITH

LAPOUT ROTARY MACHINE AT SHEETMETAL SHOP

PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

\* 18 GAUGE GALV. SHEETMETAL

\* 12'X20'X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL2	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4	
	STEPS	់ F 4									

	SILPS F 4	
	A1 B0 G1 A6 E0 P3 A0 $4.00$ $440$ .	
2	PUSH LAPOUT-SWITCH PROCESS F 4	
	A1 B0 G1 M1 X16 I0 A0 4.00 760.	
3	PUSH AND GUIDE SHEETMETAL2 THROUGH LAPOUT WITH 3 STEPS	
	F $4$	
	A6 B0 G1 M1 X0 I3 A0 $4.00$ $440$ .	
4	REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT.WITH	
	4 STEPS F 4	
	A1 B0 G1 A6 E0 P3 A0 4.00 440.	•
5	MOUE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER	
	A1 B0 G1 A16 B0 P1 A0 1.00 190.	

TOTAL TMU 2270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? FORM 90 DEGREE EDGE, ON CHEEKS FOR OFFSET

Output to line-Printer <Y or N> ? N

( 39, 1)

FIT .W11 OFFSET.M65

FORM 90 'DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (ROLL FORMER) AT SHEETMETAL SHOP

PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'X20'X36'L OFFSET / OFFSET 8'
- \* START CHEEKS THROUGH EDGER MACHINE --
- \* WITH PREVIOUSLY TURNED UP EDGE --
- \* -- SEE [OFFSET.M63]

FITTER BEGINS AT EDGER

1	POSITION	SHEETMETAL2	FROM	CART	AT	EDGER	TO	EDGER	WITH	4		
	STEPS F	2										
			A.	l B0	G	1 A6	ВС	) P6	A0		2.00	280.

2	PUSH	EDGE	ER-SWIT	CH PROCESS	F 4	4								
				-7	1	в0	G1	Н1	X42	ΙO	A0		4.00	1800.
3	PUSH	AND	GUIDE	SHEETMETAL2	TI	HROUG	GH 1	EDGER	WITH	3	STEPS	F		

4 REPLACE SHEETMETAL2	FROM					XO AT ED			4	4.00	440 •
STEPS F 2		A1	в0	G1	Aб	в0	Р3	A0		2.00	220.

				A.	1 в0	G1	Аб	В0	Р3	A0	2.00	220.
5	MOUE	CART	WITH	SHEETMETAL2	FROM	EDGE	R TO	PIT	TSBU	IRGH		
				A.	1 в0	G1	A16	В0	Ρ1	A0	1.00	190,

TOTAL TMU 2930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?-

OFG: 4 10-MAY-83

File Description ? FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET
Output to line-printer <Y or N> ? N

(39, 1)

FIT ,W11

OFFSET.M66

FORM PITTSBURGH LOCK ON WRAPPERS FOR OFFSET WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER OFFSET

NASSCO SHEETMETAL SHAPE 13

\* 18 GAUGE GALV. SHEETMETAL \* 12'X20°X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT PITTSBURGH

1	PLACE	SHEETMETAL2	FROM	CART	ΑT	PITTS	BURG	н то	PIT	TSBURGH		
	WITH	4 STEPS F 2										
				A1	30	G1	Аб	в0	Р3	A0	2.00	
2	DIISH I	OTTTSRIIRCH-RI	TTTON	DROCE	122	F 4						

2 PUSH PITTSBURGH-BUTTON PROCESS F 4

A1 30 G1 M1 X32 I0 A0 4.00 1400.

3 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3

STEPS F 4

A6 30 G1 M1 X0 I3 A0 4.00 440.

4 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT

PITTSBURGH WITH 4 STEPS F 2
Al B0 G1 A6 B0 P3 A0 2.00 220.

5 MOUE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 2880.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

52,420

220.

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET
Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 OFFSET.M67

POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP

PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'X20'X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT WORKTABLE

1	PLACE	S	HEETME'	TA:	Ը2	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	$\mathtt{WITH}$	4	STEPS	F	2						

	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	FASTEN [FLATTEN] SHEETMETAL AT WORKTABLE 3 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 4		
	A1 B0 G1 A1 B0 F6 A0	4.00	360.
4	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 1 STRIKE		500.
-	USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )		
		1 00	260
_	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8)	1.00	360.
5	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 8		
	A1 B0 G1 A1 B0 P3 A0	8.00	480.
6	MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
	20 01 1101 20 11 110	<b>±.</b> 00	570.

TOTAL TMU 2590.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

5.5,010

# File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 OFFSET.M68

FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 18 GAUGE GALV. SHEETMETAL
- \* 12'X20'X36'L OFFSET / OFFSET 8'
- \* ROLL UP WRAPPERS WITH SPACERS IN --
- \* -- PITTSBURGH LOCKS TO KEEP --
- \* -- LOCKS FROM FLOATING

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL FROM FITTER AT ROLLER TO ROLLER WITH 2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2.00	160.
2	FASTEN BOLT [ROLL] TO SHEETMETAL2 AT ROLLER 3 SPINS USING HAND F 6		
	A1 B0 G1 A1 B0 F1 F6 A0 B0 P0 A0	6.00	600.
3	PUSH ROLLER-BUTTON PROCESS F 16		
	A1 B0 61 M1 X96 I0 A0 .	16.00	15840.
4	POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT		
	ROLLER WITH 3 STEPS F 8 A1 B0 G1 A6 B0 P6 A0	8.00	1120.
5	MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W (or H for help> ?

73,330

TOTAL TMU

Please input file <OFFSET.M69> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

rit .W11 OFFSET.M69

ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL

SHOP

PER OFFSET OFG: 4 10-MAY-83

NASSCO SHEETMETAL SHAPE 13

\* 18 GAUGE GALV. SHEETMETAL

\* 12'X20'X36'L OFFSET / OFFSET 8'

FITTER BEGINS AT WORKTABLE

1	REPLACE MASKING-TAPE FROM WORKTABLE F 8	SHEE	TMETAL	TO W	VORK'	[ABL]	E AT			
			30 G1				A0		8.00	480.
2	LOOSEN SHEETMETAL [SPACER: AT WORKTABLE 1 STRIKE US:	_						]		
	ASIDE PF 8 ( 4 5 6 7 )									
2	· · · · · · · · · · · · · · · · · · ·		0 L3			Р1	A0	(8)	1.00	360.
3	MOVE BARCLAMP FROM TOOLRO		o work B0 G1		_	<b>р</b> 1	<b>Z</b> ()		1.00	1970.
4	POSITION SHEETMETAL FROM								1.00	1010.
	WORKTABLE F 2	۸1 D	s0 G1	Α1	в0	F6	ΑO		2.00	180
	4	-7 T	, GI	$\Delta$ T	טם	T. O	$\Delta$ 0		2.00	<b>±00.</b>

A1 B0 G1 A1 B0 F6 A0 2.00 180 5 POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8

 $$\rm A1~B0~G1~A1~B0~P6~A0~8.00~720$  6 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3

WRIST-TURNS USING HAND AND ASIDE PF 8 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P1 F6 )A1 B0 P1 A0 (8) 1.00 680.

7 POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 32

A1 B0 G1 A1 B0 P6 A0 32.00 2880, 8 FASTEN SETTINGTOOL TO SHEETHETAL AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )
A1 B0 G1 (A1 B0 P0 F6. )A1 B0 P1 A0 (32) 1.00 2280.

A1 B0 G1 (A1 B0 P0 F6. )A1 B0 P1 A0 (32) 1.00 9 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 7 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )

A1 BO G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (24) 1.00 4120.

10 LOOSEN BARCLAMP FROM SHEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND F 8

A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0 8.00 800.

11 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 19 (  $4\ 5\ 6\ 7$  )

A1 B0 G1 (A1 B0 P0 F32 )A1 B0 P1 A0 (19) 1.00 6310.

12 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0. 1.00

94210 FAB 56 MN. TOTAL THU 20880. 10000 M.O 6 MN 3 14 MN. 12730 M.O 8 MN 3 - 700 MV. 41 SEC 11,6240 Tot. 70 MN.

100.

SHEET METAL SHAPE #13

14"x12"x30"16 OFFSET - OFSET 10"

FAB	35610	21 MIN
MARK out	19620	12 MIN.
WELD	53900	32 MIN.
TotAL	109130	65 MIN
	,	

#### PARAMETER ENDING 11-06-82

		-								
сон	ERECTION	HULL	bescutatibi	ENG STRUC	TURE TUAL TO	LOFTING -	ACTUAL	CHASE FLAG	START PATE	BUR YEST THE SHATTON
G	V2-42000	418	(12 PCS) VENT DUCT 2ND DK FR 47-83 (YI-42) ZONE 42	NRE C	NREC	07/07/82	00/00/00	Z	07/29/82 08/27/82	418-501-042
G	V2-63505	418	COMPLETE INSTALLATION OF YE-63	NREC	NREC :	NREC .	NREC	7	` 08/24/82 ·	418-501-163
			SUNE 63 (A1-63)	· ·					\$8/11/85	28 /1 E/80 28 /1 E/80
G	V2-84004	418	(O PCS) SPOOLS FOR CABLE DK FR	NREC	NREC	NREC	NREC	Ĥ	00/00/00	418-501-084-N/W
			ZONE 84 (Y1-84)			•	-		08/31/82	08/24/82 08/31/82
G	V2-71010	418	AENT DRCT BED DK EES \$1-58-11\$	NREC	NREP TO	97/99/83	- 65\Box66,	形用设	00/00/00	418-501-1717
			ZONE 71 (Y1-71)						08/03/85	68 \\$0\8\$ , 65\83\ \\
G	V2-71011	418	VENT DUCT 3RD DK FRS 29-32 POR	NRE C ·	NREC	07/16/82	00/00/00	н	00/00/00 09/03/82	418-501-171 08/27/82 09/03/82
			ZONE 71 (Y1-71)						09703762	08721762 09703762
G .	V2-83009	4 18	( -PCS) VENT (SPIRAL) CABLE D FR-33-39 P/S ZONE-83	NRE C	NREP PAR	\$81.607.00	90 (99/99	H	00/00/00	418-501-003-09/03/82 08/20/82 09/03/82
6	V2-71008	418	VENT DUCT 3RD DK FR 27-30 STBD	NRE C	NREC	07/16/82	00/00/00	, H	00/00/00	418-501-171
			ZONE 71 (Y1-71)						09/13/82	08/27/82 09/13/82
G	V2-71009	418	VENT PUCT ARD DK FRE 29-42 STR	NRE C	NREC	97/16/82	00/00/00	2 # 33	00/00/00	418-501-171-09413482
			ZONE 71 (Y1-71)	•					09/13/62	08/53/45, , 08/12/85
G	V2-83001	4 18	(12 PCS) VENT DUCT (LARGE) CAB KKKK ZONE 83	N RE C	NREC	07/20/82	00/00/00	н "	00/00/00 09/13/82	418-501-183- 08/31/82 09/13/82
G	V2-84005	418	(B PC5) VENT DUCT AND TERMS CA FR 17-19 P/S ** H.U. M-124 ** ZONE 84 (Y1-84)	N RE C	NREC	\$8/91770	90 < 90 < 00	H <sub>e</sub>	00/00/00	418-501-084-NWT 3/82 08/27/82 09/13/82
G	V2-82000	418	(0 PCS) SPOOLS CABLE DK FR 27- ZONE 82 (Y1-82)	NREC	NREC	NREC	NREC	н	00/00/00 09/15/82	418-501-182 08/27/82 09/15/82
G	000E8-SV	418	VLNT (SPOOLS) CABLE DECK FR.39 HI ZONE 83	NREC	NREC	NREC .	NREC	н '	09/15/88	418-501-193-09/15/62

File Description ? MARK OUT CHEEKS OR OFFSET

Output to line-printer <Y or N> ? N

( 39, 1)  FIT .W11 OFFSET.M90  MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEET SHOP	'METAL	
PER OFFSET  NASSCO SHEETMETAL SHAPE 13  * 11 GAUGE GALV. SHEETMETAL  * 14'X12'X30'L RECTANGULAR OFFSET  * OFFSET 10'  * MARK OUT CHEEKS WITH TEMPLATE FITTER BEGINS AT WORKTABLE	Y-83	
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS F 2		260
A1 B0 G1 A10 B0 F6 A0 2 POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 6	2.00	360.
A1 B0 G1 A6 B0 F6 A0  3 MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7	6.00	840.
A1 B0 G1 (A1 B0 F1 R16 )A1 B0 F1 A6 (6) 4 REPLACE WEIGHTS FROM TEMPLATES AT WORKTABLE TO WORKTABLE WITH.3 STEPS F 6	1.00	1120.
A1 B0 G1 A6 B0 P3 A0 5 REPLACE TEMPLATES FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 5 STEPS F 2	6.00	660.
A1 B0 G1 A10 B0 F3 A0 6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	2.00	300.
REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 F1 A0 (6)  7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 44 ( 4 5 6 7 )	1.00	340.
ASIDE PF 44 ( 4 5 6 7 )  Al B0 Gl (Al B0 Fl R3 )Al B0 Fl A0 (44)  8 MARK IDENTIFICAITON ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	2240.
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (52)	1.00	2640.
TOTAL TM	Ū	8500.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? MARK OUT WRAPPERS FOR OFFSET

#### Output to line-printer <Y or N>? N

39, 1) FIT .W11 OFFSET.M91 MARK OUT WRAPPERS FOR RECTANGULAR OFFSET WITH AWL AT SHEE	CTMETAL	
SHOP PER OFFSET OFG: 4 26-MAY	7 02	
NASSCO SHEETMETAL SHAPE 13  * 11 GAUGE GALV. SHEETMETAL  * 14'X12'X30'L RECTANGULAR OFFSET  * OFFSET 10'  * MARK OUT WRAPPERS WITHOUT TEMPLATE FITTER BEGINS AT WORKTABLE	1-03	
1 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 F1 M32 )A1 B0 F1 A0 (4)	1.00	1400
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (6)	1.00	
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 3	3.00	330.
A1 B0 G1 A3 B0 F6 A0 4 MARK LINES FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )	3.00	330.
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 F1 A0 (3) 5 POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 8	1.00	190.
A1 B0 G1 A6 B0 F6 A0 6 MARK SHEETMETAL FROM CORNER TEMPLATES AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	8.00	1120.
A1 B0 G1 (A1 B0 F1 R6 )A1 B0 F1 A0 (8) 7 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	680.
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (6)  8 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	1120.
ASIDE PF 44 ( 4 5 6 7 )  Al BO G1 (A1 BO F1 R3 )A1 BO F1 AO (44)  9 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	2240.
A1 B0 G1 (A1 B0 F1 R3 )A1 B0 P1 A0 (52) 10 PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	2640.
A1 B0 G1 A6 B0 P3 A0	2.00	220.
11 MOVE CART FROM WORKTABLE TO 14FT SHEAR A1 B0 G1 A81 B0 F1 A0	1.00	840.
TOTAL TM	U	11120.

# File Description ? SHEAR CHEEKS AND WRAPPERS FOR OFFSET Output to line-printer <Y or N> ? N

(39, 1)  FIT .W11 OFFSET.M92  SHEAR CHEEKS AND WRAPPERS FOR RECTANGULAR OFFSET WITH 1  AT SHEETMETAL SHOP	4FT. SHEAR	
PER OFFSET  NASSCO SHEETMETAL SHAPE 13  * 11 GAUGE GALV. SHEETMETAL  * 14'X12'X30'L RECTANGULAR OFFSET  * OFFSET 10'  FITTER BEGINS AT 14FT.SHEAR	Y-83	
1 POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2	2 00 0	
A1 B0 G1 A6 B0 P6 A0 2 PUSH 14FT. SHEAR-FOOTPEDAL PROCESS F 2 A1 B0 G1 M1 X3 I0 A0 3 POSITION SHEETMETAL2 FROM 14FT.SHEAR TO 14FT.SHEAR WITH		20.
4 STEPS F 16 A1 B0 G1 A6 B0 P6 A0	16.00 22	40.
5 REPLACE SHEETMETAL2 FROM 14FT.SHEAR TO CART AT	16.00 9	60.
14FT.SHEAR WITH 4 STEPS F 2  Al BO G1 A6 BO P3 A0	2.00 2	20.
6 MOUE CART FROM 14FT.SHEAR TO WORKTABLE A1 B0 G1 A81 B3 P1 A0	1.00 8	370.

TOTAL TMU 4690.

Type [1,EM,CT,EW,EX,L,LD,LS,M,T,W] <or H for help> ?

File Description ? CUT RADIUSES AND CORNERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 OFFSET.M93

CUT RADIUSES AND CORNERS FOR RECTANGULAR OFFSET WITH SABER-SAW A1

SHEETMETAL SHOP PER OFFSET

FFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL
- \* 14'X12'X30'L RECTANGULAR OFFSET
- \* OFFSET 10'
- \* CUT RADIUSES & CORNERS ON CHEEKS
- \* CUT CORNERS ON WRAPPERS

FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITJH 4 STEPS F 2		
	A1. B G1 A6 B0 P6 A0	2.00	200.
2	MOUE SABER-SAW2 FROM TOOLROOM TO WORKTABLE		
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	FASTEN NUT [SAW-BLADE] TO SABER-SAW AT WORKTABLE 3		
	WRIST-TURNS USING ALLEN WRENCH AT WORKTABLE AND ASIDE		
	PF3 (4567)		
	A1 B0 G1 (A1 B0 P3 F6 )A1 B0 P1 A0 (3)	1.00	340.
4	OPERATE SABER-SAW AT WORKTABLE PROCESS F 12		
	Al BO G1 M6 X67 IO AO	12.00	9000.
	5 REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
6	MOUE CART FROM WORKTABLE TO ROLLER		

A1 B0 G1 A54 B0 P1 A0 1.00

TOTAL TMU 12380.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

. 17070

370.

OFFSET.M94

File Description ? FORM, RADIUSES ON WRAPPERS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39,1) FIT .W11 OFFSET.M94

FORM RADIUSES ON WRAPPERS FOR RECTANGULAR OFFSET WITH

ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

OFG: 4 26-MAY-83 PER OFFSET

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GAL SHEETMETAL
- \* 14'X12°X30'L RECTANGULAR OFFSET
  - \* OFFSET 10'
  - \* ROLL UP WRAPPER RADIUSES AND CHECK----THEM WITH RADIUSES ON CHEEKS
  - \* COMPLETE IN WELD BOOTH AREA
  - \* SEE MWELD.SEE OFFSET.M95
- FITTER BEGINS AT ROLLER

1	PLACE	SH	EETMETAL2	FROM	CART	AT	ROLLER	TO	ROLLER	WITH	4
	STEPS	F	2								

	A1	B0 G1	Аб Е	30 P3	A0	2.00	220.
2 FASTEN BOLT [ROLLS	] TO SHEET	METAL2	AT ROLL	ER 3			
WRIST-TURNS USING	HAND WITH	2 STEPS	5 F 6				
		P1 F6		80 PO	A0	6.00	600.
3 PUSH ROLLER-BUTTON	PROCESS F	16					
	A1	B0 G1	M1 X	96 I0	A0	16.00	15840.
4 POSITION SHEETMETA	L2 FROM RO	LLER TO	SHEETM	ETAL2	AT		
ROLLER WITH 3 STE	PS F 8						
	A1	B0 G1	A6 B0	) F6	A0	8.00	1120.
5 REPLACE SHEETMETAL2	FROM ROLL	ER TO C.	ART AT	ROLLE	R WITH		
2 STEFS F 2							
	A1	B0 G1	A3 B0	P3	A0	2.00	160.
6 MOUE CART FROM ROLI	ER TO WORK	TABLE					

TOTAL TMU 18540.

A1 B0 G1 A54 B3 P1 A0 1.00 600.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### Please input file <OFFSET.M95> ?

#### File Description ? WELD RECTANGULAR OFFSET

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01 OFFSET.M95

WELD RECTANGULAR OFFSET WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH PER RECTANGULAR OFFSET OFG: 4 20-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV.SHEETHETAL
- \* 14'X12'X30'L OFFSET, OFFSET 10'
- \* WELDING DONE IN WELD BOOTH AREA
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

220. 1370. 220. 370.
1370. 220. 370.
220. 370.
370.
370.
60.
60.
• • •
560.
520,
520,
1820.
1040.
2340.
36200.
1040.
1740

#### OFFSET . 14 /)

TOTAL TMU 53900.

ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF  $4\ 0\ (\ 4\ 5\ 6\ 7\ )$  '

	40(4567)		
_	A1 B0 G1 (A1 B0 P1 C10 )A1 B1 P1 A0 (40)	1.00	4840.
15	REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT		
	WELDTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
16	FITTER MOUE CART FROM WELDTABLE TO WORKTABLE		
	A1 B0 G1 A131B0 P1 A0	1.00	1340.
	-11 -2 -1		_0 _0 ,

File Description ? WELD RECTANGULAR OFFSET
Output to line-printer <Y or N> ?

# SHEET METAL SHAPE # 13

FAB	109700	66 MIN.
MARKOUT	21890	13 MIN.
ToTAL	131590	78 MIN

File Description ? MARK OUT CHEEKS FOR OFFSET

#### 

FIT	9,1) .W11 OFFSET.M80  MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP OFFSET OFG: 4 11-MAY-83 NASSCO SHEETMETAL SHAPE 13 * 22 GAUGE GALV. SHEETMETAL * 8'X8'X70'L OFFSET / OFFSET 20' * MARK OUT CHEEKS FOR OFFSET WITH TEMPLATE FITTER BEGINS AT WORKTABLE	
1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2	200
2	A1 B0 G1 A6 B0 P6 A0 2.00 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 8	280.
3	A1 B0 G1 A6 B0 P6 A0 8.00  MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7	1120.
4	A1 B0 G1 (Al B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 POSITION CPUNCH FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 8	1120.
5	A1 B0 G1 A6 B0 P6 A0 8.00 FASTEN CPUNCH TO SHEETMETAL AT WOKRTABLE 1 STRIKE USING HAMMER AND ASIDE PF 8 ( 4 5 6 7 )	1120.
6	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (8) 1.00 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 8	360.
7	Al B0 G1 A6 B0 P3 A0 8.00 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO	880.
8	WORKTABLE F 2  Al B0 G1 A1 B0 P3 A0 2 .00  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	120;
	USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al B0 G1 (Al B0 F1 R16 )A1 B0 P1 A0 (6) 1.00 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1120.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )	0040
10	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (44) 1.00 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7)	2240.
	A1 B0 G1 (A1 B1 P1 R3 )A1 B0 P1 A0 (52) 1.00	2640.
	TOTAL TMU	11000.

#### File Description ? MARK OUT WRAPPERS FOR OFFSET

Output to line-Printer <Y or N> ? N

Out	tput to line-Printer < Y or N> ? N		
FIT	.W11 OFFSET.M81  MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP OFFSET OFG:4 11-MA  NASSCO SHEETMETAL SHAPE 13  * 22 GAUGE GALV. SHEETMETAL  * 8'X8'X70'L OFFSET / OFFSET 20'  * MARK OUT WRAPPERS FOR OFFSET  t WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE	Y-83	
1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
2	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	1400.
3	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F-4	1.00	240.
4	A1 B0 G1 A6 B0 P6 A0 MARK SHEETMETAL FROM STRAIGHTEDGE AT WORKTABLE 5 DIGITS	4.00	560.
5	USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al B0 G1 (Al B0 Pl R16 )Al B0 Pl A0 (4) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	760.
6	AT WORKTABLE WITH 3 STEPS F 8  Al B0 G1 A6 B0 P6 A0  MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2  DIGITS USING AWL AT WORKTABLE AND ASIDE. PF 8 ( 4 5 6 7	8.00	1120.
7	Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )	1.00	680.
8	Al B0 Gl (A1 B0 P1 R3 )A1 B0 P1 A0 (8) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	440.
9	ASIDE PF 44 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (44)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7	1.00	2240.
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS	1.00	2640.
11	A1 B0 G1 A6 B0 P3 A0 MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO SMALLSHEAR	1.00	110.
	A BO G1 A67 BO P1 A0	1.00	7.00

TOTAL TMU 10890.

File Description ? SHEAR SHEETMETAL FOR OFFSET
Output to line-printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.M82

SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8'X70'L OFFSET / OFFSET 20'
- \* SHEAR 1'SPACER STRIPS FOR PITTSRURGH --
- \* -- LOCKS WHEN ROLL FORMING RADIUS

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL2 FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS F 2		
	A1, B0 G1 A6 B0 P6 A0	2.00	280.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 2		
	A1 B0 G1 M1 X6 I0 A0	2.00	180.
3	POSITION SHEETMETAL2 FROM SMALLSHEAR TO SMALLSHEAR WITH 2 STEPS F 20		
	A1 B0 G1 A3 B0 P6 A0	20.00	2200.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 20		
	Al BO G1 M1 X6 IO AO	20.00	1800 .
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT		
	SMALLSHEAR WITH. 10 STEPS F 2  Al BO G1 Al6 E0 P3 A0	2.00 <sup>I</sup>	420.
c		2.00	420.
O	MOUE CART WITH SHEETMETAL2 FROM SMALLSHEAR TO WORKTABLE A1 B0 G1 A67 B3 P1 A0	1.00	730.

TOTAL TMU 5610.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? SHEAR CHEETK RADIUS FOR OFFSET

Oput to line-printer <Y or N> ? N

(39, 1) • Wll

FIT .Wll OFFSET.M83

SHEAR CHEEK RADIUS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL SHOP PER OFFSET OFG: 4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GLAV. SHEETMETAL
- \* 8'X8'X70' L OFFSET / OFFSET 20'
- \* BEND UP ONE CORNER ON CHEEK EDGE WITH--
- \* --VISEGRIPS FOR EASY ENTRY IN EDGE--
- \* --ROLLING MACHINE

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
•	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR AT WORKTABLE PROCESS F 23	_,,,	
4		23.00	41630.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 C3 )A1 B0 P1 A0 (16)	1.00	1160.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (16)	1.00	1160.
6	GRIP AND TWIST SHEETMETAL [CHEEK CORNER EDGEL AT	_,,,	,
	WORKTABLE 1 TWIST USING VISEGRIPS AT WORKTABLE AND		
	ASIDE PF 2 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (2)	1.00	140.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE	1.00	140.
	WITH 4 STEPS F 2		
0	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOVE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT  A1 B0 G1 A54 B0 P1 A0	1.00	570.
	711 00 01 7151 00 11 710	1.00	370.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

47070 •

TOTAL TMU

#### File Description ? FORM LAP ENDS FOR OFFSET

Output to line-printer <Y or N> ? N

- 1	1	2	a	1	1
١.	l	2	ン	_	,

FIT .W11 OFFSET.M84

FORM LAP ENDS FOR OFFSET WITH LAPOUT (ROTARY MACHINE) AT SHEETMETAL SHOP

ER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8'X70' L OFFSET / OFFSET 20'
- \* FORM LAP END ON ROTARY MACHINE

FITTER BEGINS AT LAPOUT

1	PLACE	SHEETMETAL2	FROM	CART	AT	LAPOUT	TO	LAPOUT	WITH	4
	STEPS	S F 4								

	STEPS F 4							
		A1 B0	G1 A6	в0	Р3	A0	4.00	440.
2	PUSH LAPOUT-SWITCH PROCES	SS F 4						
		A1 B0	G1 M1	X16		A0	4.00	760.
3	PUSH AND GUIDE SHEETMETA	L2 THROU	JGH LAPOU	TT WIT	гн 3	STEPS		
	F 4							
		A6 B0	G1 M1			A0	4.00	440.
4	REPLACE SHEETMETAL2 FROM	LAPOUT	TO CART	AT LA	APOUT	C WITH		
	4 STEPS F 4							
		A1 B0	G1 A6	в0	Р3	A0	4.00	440.
5	MOVE CART WITH SHEETMETA	L2 FROM	LAPOUT 7	O EDO	GER			
		A1 B0	G1 A16	В0	P1	A0	1.00	190.

TOTAL TMU 2270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET Output to line-pinter <Y or N> ? N

(39, 1)OFFSET.M85 FIT.W11

FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER (FLANGER) AT SHEETMETAL SHOP OFG:4 11-MAY-83 PER OFFSET

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GALV. SHEETMETAL \* S'X8'X70' L OFFSET / OFFSET 20'
- \* BEGIN EDGE IN MACHINE WITH PREVIOUSLY--
- \* --TURNED UP EDGE
- \* TURN UP WITH VISEGRIPS AT WORKBENCH FITTER BEGINS AT EDGER

1	POSITION SHEETMETAL2 STEPS F 2	FROM C	!ART	AT	EDGE	R	WITH	4		
	22	A1 B0	G1	Аб	в0	Р6	A0		2.00	280.
2	PUSH EDGER-SWITCH PROCES	SF4								
		A1 B0	G1	M1	X42	IO	A0		4.00	1800.
3	PUSH AND GUIDE SHEETMETA	L2 THRO	JGH EI	DGER	WITH	I 3	STEPS	F		
	4									
		A6 B0	G1	M1	X0	I3	A0		4.00	440.
4	REPLACE SHEETMETAL2 FROM	EDGER '	ro cai	RT A	T EDG	ER	WITH 4	1		
	STEPS F 4									
		A1 B0	G1	Аб	в0	Р3	A0		4.00	440.
5	MOUE CART WITH SHEETMETA	L2 FROM	EDGE	R TO	PITT	SBU	RGH			
		A1 B0	G1	A16	в0	Р1	A0		1.00	190.

TOTAL TMU 3150.

Type D, EM, CT, EW, EX, L, LD, , LS, M, T, W <or H for help> ?

#### File Description ? FORM PITTSBUGH LOCKS FOR OFFSET

Output to line-printer (Y or N> ? N

(39, 1)

FIT .W11 OFFSET.M86

FORM PITTSBURGH LOCKS FOR OFFSET WITH PITTSBURGH MACHINE AT SHEETMETAL SHOP

PER OFFSET OFG:4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8'X70' L OFFSET / OFFSET 20'
FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2  $\,$ 

	A1 BO G1 A6 B0 P3 A0	2.00	220.
2	PUSH PITTSBURGH-BUTTON PROCESS F 4	4 00	1 400
2	A1 BO 61 M1 X32 I0 A0 PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 3	4.00	1400.
3	STEPS F 4		
	A6 B0 <i>G1</i> M1 X0 13 A0	4.00	440.
4	REPLACE SHEEETMETAL2 FROM PITTSBURGH TO CART AT		
	PITTSBURGH WITH 4 STEPS F 2		
_	A1 B0 G1 A6 B0 P3 A0	2.00	220.
5	MOVE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE	1 00	600
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 2880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET Output to line-Printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.M87

POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8'X70' L OFFSET / OFFSET 20'
- \* PLACE PREVIOUSLY CUT SPACERS IN--
- \* --PITTSBURGH LOCK TO PROTECT LOCKS--
- \* --WHILE ROLLING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	A1 B0 G1 A6 B0 P3 A0	2.00	220.
۷	FASTEN [FLATTEN] SHEETMETAL CORNERS AT WORKTABLE 3 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (8)	1.00	600.
3	POSITION SHEETMETAL [SPACERS] FROM WORKTABLE TO		
	SHEETMETAL AT WORKTABLE F 8	0.00	<b>700</b>
1	A1 B0 G1 A1 B0 P6 A0 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH	8.00	720,
4	LOCKS3 AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE		
	AND ASIDE PF 12 (4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (12)	1.00	520.
5	PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 2 STEPS F 8		640.
_	A1 B0 G1 A3 B0 P3 A0	8.00	040.
6	MOVE SHEETMETAL2 FROM WORKTABLE TO ROLLER  A1 B0 G1 A54 B0 P1 A0	1 00	970.
	A1 B0 G1 A54 B0 P1 A0	1.00	
	TOTAL TO		2050
	TOTAL TM	IU	3270.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

-64,250

#### File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.M88

FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP

PER OFFSET OFG:4 08-JUL-83

NASSCO SHEETMETAL SHAPE 13

\* 22 GAUGE GALV. SHEETMETAL

\* 8'X8'X70' L OFFSET / OFFSET 20'

FITTER BEGINS AT ROLLER

1	PLACE	SHEET	rmetal2	FROM	FITTER	AT	ROLLER	TO	ROLLER	WITH
	2 STE	PS F	2							

	A1 B0 G1 A3 B0 P3 A0	2.00	160.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER WITH 3		
	SPINS USING HAND WITH 2 STEPS F 6		
_	A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0	6.00	600.
3	PUSH ROLLER-BUTTON PROCESS F 16		
	A1 B0 G1 M1 X96 I0 A0	16.00	15840.
4	POSITION SHEETMETAL2 FROM ROLLER TO SHEETMETAL2 AT	10.00	10010.
7			
	ROLLER WITH 3 STEPS F 8		
	A1 B0 G1 A6 B0 P6 A0	8.00	1120,
5	REPLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH		
	2 STEPS F 2		
	A1 B0 G1 A3 B0 P3 A0	2 00	1.00
_		2.00	160.
6	MOVE CART WITH SHEETMETAL2 FROM ROLLER TO WORKTABLE		
	A1 B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 18480.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET
Output to line-printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.M89

ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP

PER OFFSET OFG:4 11-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 22 GAUGE GALV. SHEETMETAL
- \* 8'X8'X70'L OFFSET / OFFSET 20'
- \* USE BAR CLAMP TO HOLD CHEEKS AND--
- \* --WRAPPERS TOGETHER WHILE SECURING--
- \* --PITTSBURGH LOCKS

FITTER BEGINS AT WORKTABLE

	FITTER BEGINS AT WORKTABLE		
1	REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 8		
2	A1 B0 G1 A3 B0 P3 A0 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE 2 STRIKES USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )	8.00	640.
	A1 B0 G1 (A1 B0 PO L6 )A1 B0 P1 A0 (16)	1.00	1160.
3	MOVE BARCLAMP2 FROM TOOLROOM TO WORKTABLE	1 00	1070
4	A96 B0 G1 A96 B3 P1 A0 POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT	1.00	1970.
_	WORKTABLE WITH 2 STEPS F 2		
_	A1 B0 G1 A3 B0 P6 A0	3.00	220.
5	POSITION BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12		
		12.00	1080.
6	FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3		
	WRIST-TURNS USING HAND F 8 A1 B0 G1 A1 B0 P1 F6 A0 B0 P0 A0	8.00	800.
7	POSITION SETTINGTOOL FROM WORKTABLE TO SHEETMETAL AT	0.00	000.
	WORKTABLE F 38	20 00	2400
8	A1 B0 G1 A1 B0 P6 A0 FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES	38.00	3420.
	USING HAMMER AT WORKTABLE AND ASIDE PF 32 ( 4 5 6 7 )		
a	A1 B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (32) FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 4 STRIKES	1.00	2280.
9	USING HAMMER AT WORKTABLE AND ASIDE PF 24 ( 4 5 6 7 )		
	Al BO G1 (Al BO PO F10 )Al BO P1 AO (24)	1.00	2680.
10	LOOSEN BARCLAMP FROM SHEEETMETAL AT WORKTABLE 3 WRIST-TURNS USING HAND F 8		
	A1 B0 G1 A1 B0 P1 L6 A0 B0 P0 A0	8.00	800.
11	FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES		
	USING HAMMER AT WORKTABLE AND ASIDE PF 36 ( 4 5 6 7 ) Al BO Gl (Al BO PO F32 )Al BO Pl AO (36)	1.00	11920.
	711 DO OI (AI DO FO F32 )AI DO FI AO (30)	1.00	11740.

TOTAL TMU

26970.

# 13

SHEET METAL SHAPE

20"x 13"x 55" LG. OFFSET - OFFSET 12"

FAB. 112850 68 MIN MARK OUT 21970 13 MIN TOTAL 139820 81 MIN

File Description ? MARK OUT CHEEKS FOR OFFSET								
Output to line-printer <y n="" or=""> ? N</y>								
FIT .W09 OFFSET.M40  MARK OUT CHEEKS FOR OFFSET WITH AWL AT SHEETMETAL SHOP  PER OFFSET OFG:4 08-APR-83  NASSCO SHEETMETAL SHAPE #13  * HULL 414  * DRAWING 501-062  * V2-1098  * V6-7595  * 18 GAUGE GALV.SHEETMETAL  * 20'X13' X 55'L OFFSET, OFFSET 12'  * MARK OUT CHEEKS USING TEMPLATE  FITTER BEGINS AT WORKTABLE								
1 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 2 A1 B0 G1 A6 B0 P6 A0 2.00								
2 POSITION 5 WEIGHTS FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 10								
Al BO G1 A6 BO P6 A0 10.00 3 MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 )								
A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE .WITH 2 STEPS F 22								
Al BO G1 A3 BO P6 AO 22.00 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 22 ( 4 5 6 7 )								

	3	MARK OUTLINES FROM TEMPLATE TO SHEETMETAL AT WORKTABLE	
		5 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1.00	1480.
	4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE .WITH 2 STEPS F 22	
	5	A1 B0 G1 A3 B0 P6 A0 22.00 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	2420.
		HAMMER AT WORKTABLE AND ASIDE PF 22 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P0 F3 )A1 B1 P1 A0 (22) 1.00	920.
	6	REPLACE 5 WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 10	
	7	A1 B0 G1 A6 B0 P3 A0 10.00	1100.
	/	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 2 STEPS F 2	160.
	8	A1 B0 G1 A3 B0 P3 A0 2.00 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	100.
		USING REDPEN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R16 )Al BO P1 AO (8) 1.00	1480.
	9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND-	
		ASIDE PF 36 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (36) 1.00	1840.
-	10	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 50 ( 4 5 6 7)	
		OBTING BLACKPEN AT WORKHABLE AND ASIDE PF 30 ( 4 3 0 /)	

Al BO Gl (Al BO Pl R3 )Al BO Pl AO (507) 1.00

TOTAL TMU

289.

1400.

2540.

13620.

Please input file <OFFSET.M41) ?</pre>

File Description ? MARK OUT WRAPPERS FOR OFFSET							
Out	put to line-printer <y n="" or=""> ? N</y>						
FIT	. w09 OFFSET.M41  MARK OUT WRAPPERS FOR OFFSET WITH AWL AT SHEETMETAL SHOP OFFSET OFG:4 11-APT NASSCO SHEETMETAL SHAPE #13  * HULL 414  * DRAWING 501-062  * V2-1098  * V6-7595  * 18 GAUGE GALV. SHEETMETAL  * 20'X13'X55'L OFFSET? OFFSET 12'  * MARK OUT WRAPPERS WITHOUT TEMPLATES FITTER BEGINS AT WORKTABLE						
	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4  Al B0 G1 A1 B0 P1 M32 A1 B0 P1 A0	4.00	1520.				
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AND ASIDE PF 10 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (10) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	540.				
	_	1.00	90.				
	USING AWL AND ASIDE PF 5 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (5)  POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL  AT WORKTABLE F 8	1.00	940.				
6	Al BO G1 A1 BO P6 AO MARK SHEETMETAL FROM CORNER TEMPLATE TO SHEETMETAL AT WORKTABLE 2 DIGITS USING AWL AND ASIDE PF 8 ( 4 5 6 7	8.00	720.				
7	) Al B0 G1 (A1 B0 Pl R6 )A1 B0 Pl A0 (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	680.				
8	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4)  MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 37 ( 4 5 6 7 )	1.00	760.				
9	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (37) MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	1890.				
10	USING BLACKPEN AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) A1 B0 G1 (A1 B1 P1 R3 )A1 B0 P1 A0 (5) PLACE SHEETMTAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	290.				
11	Al BO G1 A6 BO P3 AO MOVE CART WITH SHEETMETAL 2 FROM WORKTABLE TO SMALLSHEAR	2.00	220.				
11	Al BO G1 A67 BO P1 A0	1.00	700.				

Type D,EM,CT,EW,EX,L,LB,LS,M,T,W (or H for help) ?

Please input file <OFFSET.M42> ?

File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M42

SHEAR SHEETMETAL FOR OFFSET WITH SMALL 8 FT. SHEAR AT SHEETMETAL

SHOP

PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

\* HULL 414

\* DRAWING 501-062

\* V2-1098

\* V6-7595

\* 18 GAUGE GALV. SHEETMETAL

\* 20'Xl3'X55'L OFFSET, OFFSET 12'

\* 2 FILTERS REQUIRED

\* SHEAR SPACER STRIPS

FITTER BEGINS AT SMALLSHEAR

560.
90.
680.
080.
420.
730.
.0

TOTAL TMU 4560.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? SHEAR RADIUS ON CHEEKS FOR OFFSET output to line-printer <Y or N> ? N

(39, 3)

FIT .W09 OFFSET.M43

SHEAR RADIUS ON CHEEKS FOR OFFSET WITH UNI-SHEAR AT SHEETMETAL SHOP

PER OFFSET OFG: 4 21-JUL-83

NASSCO SHEETMETAL SHAPE 13

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7595
- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X13'X55'L OFFSET, OFFSET 12'
- \* BEND UP EDGE-CORNERS FOR EDGE

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	OPERATE UNISHEAR PROCESS F 17	1.00	1970.
4	Al BO G1 M6 X17310 AO	17.00	30770.
4	CUT CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P3 C3 )Al B0 P1 A0 (16)	1.00	1160.
5	FASTEN [FLATTEN] CORNERS ON SHEETMETAL AT WORKTABLE 3		
	STRIKES USING HAMMER AND ASIDE PF 16 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F6 )A1 B0 P1 A0 (16)	1 00	1160
_	GRIP AND TWIST EDGE CORNERS ON SHEETMETAL AT WORKTABLE	1.00	1160.
6	1 TWIST USING VISEGRIPS AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (4)	1.00	240.
7	REPLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
8	MOUE CART WITH SHEETMETAL2 FROM WORKTABLE TO LAPOUT  A1 B0 G1 A54 B0 P1 A0	1 00	F70
	A1 B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 36310.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET.M44) ?

File Description ? FORM LAP ENDS FOR OFFSET

Output to line-Printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M44

FORM LAP ENDS FOR OFFSET WITH LAPOUT MACHINE AT SHEETMETAL SHOP PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7595
- \*18 GAUGE GALV. SHEETMETAL
- \* 20'Xl3'X55'L OFFSET, OFFSET 12'

FITTER BEGINS AT LAPOUT

1 PLACE SHEETMETAL2 FROM CART AT LAPOUT TO LAPOUT WITH 4 STEPS F 4

Al BO G1 A6 BO P3 A0 4.00 440.

2 OPERATE LAPOUT-SWITCH PROCESS F 4

Al BO G1 M6 X16 IO AO 4.00 960.

3 REPLACE SHEETMETAL2 FROM LAPOUT TO CART AT LAPOUT WITH 4 STEPS F 4

A1 B0 G1 A6 B0 P3 A0 4.00 440.

MOVE CART WITH SHEETMETAL2 FROM LAPOUT TO EDGER

Al BO G1 Al6 BO P1 AO 1.00 190.

TOTAL TMU 2030.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <OFFSET.M45> ?

File Description ? FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET Output to line-printer <Y or N> ? N

1 PLACE SHEETMETAL2 FROM CART AT EDGER TO EDGER WITH 4

(39,3)

IT .W09 OFFSET.M45

FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET WITH EDGER MACHINE AT SHEETMETAL SHOP

PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \*(V6-7595
- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'Xl3'L OFFSET, OFFSET 12'
- \* USE TURNED UP EDGE TO START METAL--
- \* THROUGH EDGER

FITTER BEGINS AT EDGER

	STEPS F 2									
		Al	B0	G1	Аб	в0	Р3	A0	2.00	220.
2	PUSH EDGER-SWITCH PROCES	SF	4							
		Al		G1		X42	IO	A0	4.00	1800.
3	PUSH AND GUIDE SHEETMETA	L2 1	HROU	IGH E	EDGER	TIW S	'H 4	STEPS F		
	4									
			_B0	G1		_X0	I3	A0	4.00	440.
4	REPLACE SHEETMETAL2 FROM	EDG	ER T	O CA	ART A	AT ED	GER	WITH 4		
	STEPS F 2		-0	~1	3.6	<b>5</b> 0	<b>5</b> 0	7.0		
_	MOLIE CARE LITEU CHEERMEEN		B0	G1		B0	P3	A0	2.00	220.
5	MOUE CART WITH SHEETMETA	_	_					_	1 00	100
		Al	В0	GΙ	Al6	В0	P1	A0	1.00	190.

TOTAL TMU 2870.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <OFFSET.M46> ?

#### File Description ? FORM PITTSBURGH LOCK FOR OFFSET

OutPut to line-printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M46

FORM PITTSBURGH LOCK FOR OFFSET WITH PITTSBURGH MACHINE AT

SHEETMETAL SHOP

PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

\* HULL 414

- \* DRAWING 501-062
- \* V2-1098
- \* V6-7595
- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'Xl3'X55'L OFFSET, OFFSET 12'
- \* USE 16-18 GAUGE PITTSBURGH MACHINE

FITTER BEGINS AT PITTSBURGH

1 PLACE SHEETMETAL2 FROM CART AT PITTSBURGH TO PITTSBURGH WITH 4 STEPS F 2

2	Al BO G1 A6 BO P3 A0	2.00	220.
	PUSH PITTSBURGH-BUTTON PROCESS F 4  Al B0 G1 Ml 'X32 IO A0	4.00	1400.
3	PUSH AND GUIDE SHEETMETAL2 THROUGH PITTSBURGH WITH 4 STEPS F 4		
4	A6 B0 G1 Ml X0 I3 A0 REPLACE SHEETMETAL2 FROM PITTSBURGH TO CART AT	4.00	440.
	PITTSBURGH WITH 4 STEPS F 2	0.00	
5	Al B0 G1 A6 B0 P3 A0 MOUE CART WITH SHEETMETAL2 FROM PITTSBURGH TO WORKTABLE	2.00	220.
	Al B0 G1 A54 B3 P1 A0	1.00	600.

TOTAL TMU 2880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET.M47> ?

File Description ? POSITION SPACERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M47

POSITION SPACERS FOR OFFSET WITH HAMMER AT SHEETMETAL SHOP
PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7595
- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X13'X55'L OFFSET, OFFSET 12
- \* PROTECT PITTSBURGH LOCKS WITH SPACERS -
- \* BEFORE ROLLING

FITTER BEGINS AT WORKTABLE

1	PLACE	S	HEETME'	TΑ	L2	FROM	CART	AT	WORKTABLE	TO	WORKTABLE
	WITH	4	STEPS	F	2					-0	72 70

			Al BO G	1 A6 B0 P3 A0	2.00 220.
2	FASTEN SHEE	ETMETAL TO	WORKTAE	SLE 3 STRIKES	
	USING HAMMER	AT WORKTABL	E AND ASI	DE PF 16 ( 4 5 6 7 )	
	A 1	B 0 (A1	BO PO F	6 )A1 B0 P1 A0 (1	1.00 1160.

3 POSITION SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCK] AT WORKTABLE WITH 3 STEPS F 8

Al BO G1 A6 BO P6 A0 8.00 1120.

4 FASTEN SHEETMETAL [SPACERS] TO SHEETMETAL [PITTSBURGH LOCKI] AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 16 ( 4 5 6 7 )

AND ASIDE FF 10 ( 4 5 0 7 )

A1 B0 G1 (Al B0 PO F3 )A1 B0 P1 A0 (16) 1.00 680.

5 PLACE MASKING-TAPE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 4 STEPS F 16

Al BO G1 A6 BO P3 A0 16.00 1760.

6 MOUE SHEETMETAL2 FROM WORKTABLE TO ROLLER

Al B0 G1 A54 B0 P1 A0 1.00 570.

TOTAL TMU 5510.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

Please input file <OFFSET.M48> ?

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

Output to line-printer <Y or N> ? N

(39,3)

FIT .W09 OFFSET.M48

FORM RADIUS ON WRAPPERS FOR OFFSET WITH ROLL FORMER (ROLLER) AT SHEETMETAL SHOP

PER OFFSET OFG: 4 08-APR-83

NASSCO SHEETMETAL SHAPE #13

- \* HULL 414
- \* DRAWING 501-062
- \* V2-1098
- \* V6-7595
- \* 18 GAUGE GALV. SHEETMETAL
- \* 20°X13'X55'L OFFSET, OFFSET 12'
- \* CHECK RADIUS ON WRAPPERS WITH
- \* RADIUS ON CHEEK

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL2 FROM FITTER AT ROLLER TO ROLLER WITH 3 STEPS F 4		
	Al BO G1 A6 BO P3 A0	4.00	440.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 6 SPINS USING HAND WITH 2 STEPS F 10		
	Al BO G1 Al BO P1 FlO AO BO PO AO	10.00	1400.
3	PUSH ROLLER-BUTTON PROCESS F 16		
	Al BO G1 Ml X96 IO AO	16.00	15840.
4	POSITION SHEETMETAL2 [WRAPPERS] FROM ROLLER TO SHEETMETAL2 [CHEEK] AT ROLLER WITH 3 STEPS F 8		
	Al B0 G1 A6 B0 P6 A0	8.00	1120.
5	MOVE SHEETMETAL2 FROM ROLLER TO WORKTABLE		
	Al BO G1 A54 B3 P1 A0	1.00	600.
	TOTAL '	TMU	19400

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

Please input file <OFFSET.M49> ?

File Description ? ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET

Output to line-printer <Y or N>? N

(39,3)

FIT

OFFSET.M49

ASSEMBLE- CHEEKS AND WRAPPERS FOR UPPSET WITH HAMMER AT SHEETMETAL

ASSEMBLE- CHEEKS AND WRAPPERS FOR UPPSET WITH HAMMER AT S	HEE.LME.LA	ΑL
PER _UPPSET Uru; 4 28		
* NASSCO SHELIMEIAL SHAPE #15		
* DRAWING 501-062		
* V2-1098		
* 116-7595 * 18 GAUGE GALV. SHEETMETAL		
* 20'X13'X55' L OFFSET, OFFSET 12		
* HOLD CHEEKS & WRAPPERS IN POSITION WITH		
* BARCLAMP		
FITTER BEGINS AT WORKTABLE		
PLACE SHEETMETAL2 FROM PITTBURGHS FITTER AT WORKTABLE TO WORKTABLE		
A 1 B 0 G1 A3 B0 P3 A0  2 REPLACE MASKING-TAPE FROM SHEETMETAL AT WORKTABLE TO  WORKTABLE WITH 3 STEPS F 18	1.00	80.
Al BO G1 A6 B P3 A0	16.00	1760.
3 LOOSEN SHEETMETAL [SPACERS] FROM SHEETMETAL [PITTSBURGH LOCKS] AT WORKTABLE-1-STRIKE USING HAMMER AT WORKTABLE		
"AND ASIDE PF 16 (4 5 6 7 ) Al BO G1 (A1 BO PO L3 )A1 BO P1 AO (16) 4 MOUE BARCLAMP2 FROM TOOLROOM TO WORKTABLE	1.00	680.
'A96 B0 G1 A96 B3 P1 A0	1.00	1970.
5 POSITION SHEETMETAL [CHEEK] TO SHEETMETAL [WRAPPERS] AT WORKTABLE WITH 3 STEPS F2		
Al B0 G1 A6 B0 P6 A0	2.00	280.
6 PLACE BARCLAMP FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6		
Al BO G1 Al BO P3 AO	6.00	360.
7 FASTEN BARCLAMP TO SHEETMETAL AT WORKTABLE 3		
'WRIST-TURNS USING HAND PF 6 (4 5 6 7 ) Al B0 G1 (A1 B0 P1 F6 )A0 B0 P0 A0 (6)	1.00	500.
8 POSITION SETTINGTOOL TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 24	1.00	500.
Al BO G1 A3 BO P6 AO b	24.00	2640.
FASTEN SETTINGTOOL TO SHEETMETAL AT WORKTABLE 2 STRIKES 'USING HAMMER AT WORKIABLE AND ABIDE FF 24 ( 4 3 3 / 7		1-00
THI BU GI (HI BU PU PO )AI BU PI AO (24)  10 FASTEN SHEETMETAL TO SHEETMETAL AT WORKTABLE7 STRIKES TUSING HAMMER AI WURNIABLE AND ASIDE PF 16 ( 4 5 6 7 )	1.00	1720.
A1 B0 G1 (A1 B0 P0 F16 )A1 B0 P1 A0 (16)	1.00	2760.
SHEETMETAL TO SHEETMETAL AT WORKTABLE 16 STRIKES	1.00	2700.
USING-HAMMER AT WORKTABLE AND ASIDE FP 4 (4567)	4 00	0.5.4.1.0
A 1 B0 GlB0 (Al B0 PO F32 )A1 B0 P1 A0 (80) INSPECT SHEETMETAL AT WORKTABLE 9 POINTS	1.00	26440.

AO BO GO AO BO PO TIO AO BO PO AO 1.00 100. OFFSET M.49

TOTAL TMU

39290.

Tupe D;EM;CT;EW;EX;L;LD;LS;M;T;W <or H for help> ?

## SHEEF METAL SHAPE # 13

18" X 12" X 46" LG OFFSET - OFFSET 24".

FAB	42080	=	25.	MIN.	7
MARK out	21,540	=	13	MIN.	ھے
WELD	104160	-	62	MIN	
TOTAL	167780		100	MIN	

#### File Description ? MARK OUR CHEEKS FOR RECTANGULAR OFFSET

Output to line-printer <Y or N> ? N

1	39		1	١
•	~ / / :	,	-	,

FIT .W11 OFFSET.M01

MARK OUT CHEEKS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL SHOP

PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X12'X60'L RECTANGULAR OFFSET
- \* OFFSET 24
- \* MARK OUT CHEEKS WITH TEMPLATE

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS F 2		
	Al BO G1 A10 BO P6 A0	2.00	360.
2	POSITION WEIGHTS FROM WORKTABLE TO TEMPLATE AT		
	WORKTABLE WITH 3 STEPS F 6 Al B0 G1 A6 B0 P6 A0	6.00	840.
3	MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7		
	Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (6)	1.00	1120.
4	REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE		
	WITH 3 STEPS F 6 Al BO G1 A6 BO P3 A0	6.00	660.
5	REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO	0.00	000.

WORKTABLE WITH 5 STEPS F 2

Al B0 G1 A10 B0 P3 A0 2.00 300.

6 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS
USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )

Al B0 G1 (Al B0 P1 R16 )A1 B0 P1 A0 (6) 1.00 1120. 7 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )

Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (44) 1.00 2240. 8 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7

Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (52) 1.00 2640.

TOTAL TMU 9280.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

#### File Description ? MARK OUT WRAPPERS FOR OFFSET

output to line-printer <Y or N> ? N

(39,1) FIT .W1: OFFSET.MO2 .W11

MARK OUT WRAPPERS FOR RECTANGULAR OFFSET WITH AWL AT SHEETMETAL SHOP

OFG: 4 26-MAY-83 PER OFFSET

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X12'X60'L RECTANGULAR OFFSET
- \* OFFSET 24'
- \* MARK OUT WRAPPERS WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
2	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (6) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	340.
3	WORKTABLE WITH 3 STEPS F 3		
4	Al B0 G1 A6 B0 P6 A0 MARK LINES FROM STRAIGHTEDGE LTO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF	3.00	420.
	3 ( 4 5 6 7 )		
5	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) POSITION CORNER TEMPLATE FROM WORKTABLE TO SHEETMETAL	1.00	580.
3	AT WORKTABLE WITH 2 STEPS F 8	0.00	0.00
6	Al B0 G1 A3 B0 P6 A0 MARK SHEETMETAL FROM CORNER TEMPLATE AT WORKTABLE 2 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7	8.00	880.
7	Al BO G1 (A1 BO P1 R6 )A1 BO P1 AO (8) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	680.
	USING REDPEN AT WORKTABLE AND ASIDE PF 11 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (11)	1.00	2020.
8	MARK CINSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	2020.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 44 ( 4 5 6 7 )		
•	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (44)	1.00	2240.
9	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (52)	1.00	2640.
10	PLACE SHEETMETAL2 FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
11	MOUE CART FROM WORKTABLE TO 14FT.SHEAR Al B0 G1 A81 B0 P1 A0	1.00	840.

TOTAL TMU 12260.

#### File Description ? SHEAR SHEETMETAL FOR OFFSET

Output to line-printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.MO3

SHEAR SHEETMETAL FOR RECTANGULAR OFFSET WITH 14FT. SHEAR AT SHEETMETAL SHOP

PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X12'X46'L RECTANGULAR OFFSET

\* OFFSET 24'

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL2 FROM	CART	' AT 1	4FT.S	HEAR	ТО			
	14FT.SHEAR WITH 4 STEPS E	7 2							
_	<del>-</del>		30 G1	Дб	в0	Р6	A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL	PROC	ESS F	2					
	Ī	Al E	30 G1	Ml	Х3	IO	A0	2.00	120.
3	POSITION SHEETMETAL2 FROM 3 STEPS F 16	14FT	SHEAI	R TO	14FT	SHE.	AR WITH		
	Al	В0	G1	Аб	В0	Р6	A0	16.00	2240.
4	PUSH 14FT.SHEAR-FOOTPEDAL	PROC	ESS F	16					
	I	Al E	30 G1	Ml	х3	IO	A0	16.00	960.
5	REPLACE SHEETMETAL FROM 1 14FT.SHEAR WITH 10 STEPS		SHEAR	TO C	ART	AT			
			30 G1	A16	BΛ	Р3	A0	2.00	420.
c					В	FJ	AU	2.00	420.
О	MOUE CART FROM 14FT.SHEAR		IORKTAI				- 0		0-0
	I	AT B	0 G1	A81	. B3	P1	A0	1.00	870.

TOTAL TMU 4890.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

File Description ? CUT RADIUS ON CHEEKS FOR OFFSET

output to line-printer <Y or N> ? N

(39,1)

FIT .W11 OFFSET.MO4

CUT RADIUS ON CHEEKS FOR RECTANGULAR OFFSET WITH SABER-SAW AT SHEETMETAL SHOP

PER OFFSET OFG: 4 26-MAY-83

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL
- \* 18'X12'X60'L RECTANGULAR OFFSET
- \* OFFSET 24'
- \* CUT RADIUSES & CORNERS ON CHEEKS
- \* CUT CORNERS ON WRAPPERS

FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL2 FROM WORKTABLE WITH 4 STEP'S I		ART A	T WC	RKTA	BLE	TO				
		Al	в0	G1	Аб	в0	Р6	A0		2.00	280.
2	MOUE SABER-SAW2 FROM TOO!	LRO	OT MC	WOF	RKTAE	$_{ m LE}$					
		A96	5 B0	G1	A96	В3	Р1	A0		1.00	1970.
3	FASTEN NUT (SAW-BLADE) TO	) SZ	ABER-	SAW	AT W	ORKT	ABLE	3			
	WRIST-TURNS USING CHUCKE	ŒY	AT W	ORKI	ABLE	AND	ASI	DE F	4		
	Al BO G1 Al	В0	Р3	F6	Al	в0	P1	A0		4.00	560.
4	OPERATE SABER-SAW AT WORK	KTAI	BLE P	ROCE	SS F	20					
		Al	в0	G1	Мб	X67	IO	A0		20100	12000+
5	REPLACE SHEETMETAL2 FROM	WOI	RKTAB	LE T	O CA	RT A	OW T.	RKTA	BLE		
	WITH 4 STEPS F 2										
		Al	в0	G1	Аб	в0	Р3	A0		2.00	∠≃V•
6	MOUE CART FROM WORKTABLE	TO	ROLL	ER							
		Al	в0	G1	A54	в0	Р1	A0		1.00	570.

TOTAL TMU 18600.

Type D, EM, CT, EX, T, W <or H for help> ?

23490

File Description ? FORM RADIUS ON WRAPPERS FOR OFFSET

output to line-printer <Y or N> ? N

(39,1)

OFFSET.MO5 FIT.W11

FORM RADIUS ON WRAPPERS FOR RECTANGULAR OFFSET WITH ROLLER (ROLL FORMER) AT SHEETMETAL SHOP OFG: 4 26-MAY-83 PER OFFSET.

NASSCO SHEETMETAL SHAPE 13

- \* 11 GAUGE GALV. SHEETMETAL \* 18'X12'X60'L RECTANGULAR OFFSET
- \* OFFSET.24'
- \* ROLL-UP WRAPPER RADIUSES AND --
- \* CHECK THEM WITH RADIUSES ON CHEEKS
- \* COMPLETE IN WELD BOOTH AREA
- \* SEE MWELD...SEE OFFSET.MO6

FITTER BEGINS AT ROLLER

1	PLACE SHEETMETAL2 FROM CART AT ROLLER TO ROLLER WITH 4 STEPS F 2	2.00	220.
_	Al B0 G1 A6 B0 P3 A0	2.00	220+
2	FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT ROLLER 3 SPINS		
	USING HAND WITH 2 STEPS F 6		
	Al BO G1 Al BO P1 F6 AO BO PO AO	6.00	600.
3	PUSH ROLLER-BUTTON PROCESS F 16		
Ū	Al BO G1 Ml X96 IO AO	16.00	15840.
4	POSITION SHEETMETAL FROM ROLLER TO SHEETMETAL AT	10.00	13040.
4			
	ROLLER WITH 3 STEPS F 8		
	Al B0 G1 A6 B0 P6 A0	8.00	1120.
5	PLACE SHEETMETAL2 FROM ROLLER TO CART AT ROLLER WITH 1	.0	
	STEPS		
	Al BO G1 Al6 BO P3 AO	1.00	210.
_	112 20 02 1120 20 11	1.00	210.
6	MOVE CART FROM ROLLER TO WORKTABLE	7 00	
	Al B0 G1 A54 B3 P1 A0	1.00	600.
	TOTAL	TMU	18590.
	IOIAL	11.10	±0000.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for heLP> ?

42080

Please input file <OFFSET.M06> ?

file Description ? WELD OFFSET

Output to line-printer <Y or N> ? N

(39,101)

WELD .W01 OFFSET.MO6

WELD OFFSET WITH ARC (STICK) WELDER AT SHEETMETAL SHOP WELDING BOOTH

PER OFFSET OFG: 4 21-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 13

- \*11 GAUGE GALV. SHEETMETAL
- \* 18X12X60' RECTANGULAR OFFSET, OFFSET 24'
- \* WELDING DONE IN WELD BOOTH AREA
- \* WELDOR PERFORMS WORK
- \* FITTER TRANSPORTS SHEETMETAL

FITTER BEGINS AT WORKTABLE

1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	FITTER MOUE CART FROM-WORKTABLE TO WELDTABLE		
	Al B0 G1 A131B3 Pl A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO		
	WELDTABLE WITH 4 STEPS F 2		
1	Al BO G1 A6 BO P3 A0	2.00	220.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS  A3 B0 G1 M1 X0 IO A32	1.00	370.
5	WELDOR TURN CURRENT OUTPUT CONTROL LEVER FROM OFF AT	1.00	370.
J	WELDMACHINES TO ON AT WELDMACHINES		
	Al BO G1 M3 XO IO Al	1.00	60.
6	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	2.00	00.
	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 8		
	A3 B3 G1 Al B0 P6 A0	8.00	1120.
7	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 8		
	Al BO G1 Ml X10 IO AO	8.00	1040.
8	WELDOR FASTEN WELDROD TO STINGER1 AT WELDTABLE 1		
	WRIST-TURN USING HAND F 53		
_	Al B0 G1 A1 B0 P1 F3 A0 B0 P0 A0	53.00	3710.
9	FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 53		21.00
1 0	Al BO G1 M1 XO IO Al	53.00	2120.
ΤU	WELDOR POSITION STINGER1 FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 53		
	ASSEMBLI AI WELDIABLE F 55  Al BO G1 Al BO P6 AO	53.00	4770.
11	WELDOR OPERATE WELD STINGER1 AT WELDTABLE PTIME 65 S F	33.00	4//0.
	40		
	Al BO G1 M6 X17310 AO	40.00	72400.
12	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 53		
	Al BO Gl M1 XO IO Al	53.00	2120.
13	WELDOR LOOSEN SLAG FROM SHEETMETAL ASSEMBLY AT		
	WELDTABLE 6 STRIKES USING SLAGHAMMER AT WELDTABLE AND		
	ASIDE PF 20 ( 4 5 6 7 )		
- 4	Al B0 G1 (A1 B0 PO L16 )A1 B0 P1 A0 (20)	1.00	3440.
⊥4	WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		

OFFSET M.O. 6
ARM-STROKES USING WIREBRUSH AT WELDTABLE AND ASIDE PF 80(4567)

Al BO G1 (Al BO P1 C10 )Al BO P1 AO (80) 1.00 9640. 15 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS F 2 Al B0 G1 A6 B0 P3 A0 2.00 220. 16 FITTER MOVE CART FROM WELDTABLE TO WORKTABLE

Al B0 G1 Al31B0 P1 A0

1.00

TOTAL TMU

1340.

104160.

File Description ? WELD OFFSET

output to line-Printer <Y or N> ?

					TER SYSTEMS		j - = -:	== , 1 (3)
	7=7=	1365		reincs ————	Description Shee	: 		5.23-83
		الحددد	File Description				Sign	YOUNG.
•	; () -		MARK OUT CHEEK	5 FOR	RECTANGLE .	OFFSEF	≥age	/
1	٠ ٠		TITLE ( • PEQUIRED) .		1	CONDITIONS / * K	EYPOINTS	
ľ	• ACT	IVITY: N74	ек		N. A.S.S.C.O.	SHEETPIETAL	SHAPE	#13
	• 353	ECT SHE	ETMETAL		* 11 GAUGE GALV.			
	<u></u>	n □on □	]ғоя .		24" MARR OUT	CHEEKS WITH	TEMPL.	4/2
		SUCT/EQUIP	<del></del>			i TENBOSA T		DELETE
	_	DL: <u>A.W.</u>	<u></u>		DATA UNIT TO BE FILED	TEMPORAR FILE NAME/N	-	YES NO
-		TO ØAT E/CAPACITY:_			WORK AREA LAYOUT	Fif. V	V.O. 11	
		rk area orig	$CII \circ$		MOST ANALYSIS	0 FF55 F M.O		
		RK AREA NUM			COMBINED SUS-OP			
١	• UNI	T.PE-R SEA	2>150 = 1-5/me OF	G: 4	TITLE SHEET	i 1		
	• 385	RATOR:	• BEGINS:		DATE FILED	LOC. NO.	DATA	OTANIDROCO
}	NC.	KEYWORD	METHOD DESCRIPTION				( SIMC	) (PF) F
Ī	/.	Posific	N TEMPLATE FROM W	6 extaB	ic to SHEETM	15-FAL AF		
Ì		1 .	5LF F-2					
j	چ		ON WEIGHTS FROM W	IOLKHA	BLE TO TEMP	LAFE AF	1	
	$\overline{}$		BLE WITH 3 STEPS.				1	
Ł	3		OUTLINE FROM TEMP		E SHEETMETAL	AF		
		WORKTA	BLE 5 DIGITS USING	- AWL	AT WORKFABLE.	AND ASIDE P.I.	46	
	4	REPLA	CE WEIGHTS FROM TE	MPLATA	- to WORKHABLE	- Af WORKHALL	<u> </u>	
		14/144 3	steps F-6		<u> </u>			
	5	REPLA	ICE TEMPLATE FROM	1 SHEL	EFMERAL TO W	BRKTABLE		
		AT WO	RKTABLE. F-Z				<u> </u>	
ВЗ	6	MARK	COTLINES ON SA	EETMET	TAL AT WORKTAR	LE 5 DIGHTS		
~			RED PEN. AT WORKE /A		,		<u> </u>	
-	7		CONSTRUCTION INFO				<u> </u>	
0			KTABLE   DIGIT US.				25/00	77:44
503	8	<del></del>	IDENTIFICATION' DIN					
J		101614	USING BLACKPEN,	At WOR	KYABLE AND ASI	IDE P.F52		
120,1							<u> </u>	
Revised							<u> </u>	
		<u> </u>						
Ξ,	<u>لـــــ</u>					<del> </del>		
>,'								
2		1		<u>.                                    </u>		- <del></del>		
=			•					
111111								
3					•	<del></del>		

-- ---

\_

### SHEEFMETAL RIVETED (TEMPORARILY) FLANGE

ZO" X ZO" FLANGE

RIVIT FLANGE TOTAL +MUS 5400 3 MIN.

## File Description ? RIVET FLANGE TO VENT DUCT (TEMPORARILY)

# **Output** to line-printer <Y or N> ? N

FIT	FLANGE.M10  RIVET FLANGE ON VENT DUCT WITH RIVET-GUN AT SHEETMETAL SHOP FLANGE OFG: 4 28-JUN-83 RIVET TEMPORARILY FOR SHIPPING AND FITTING * 20'X20' GALV. FLANGE * ATTACH FLANGE TO VENT DUCT TEMPORARILY *FOR SHIPPING AND PRELIMINARY FITTING FITTER BEGINS AT WORKTABLE	
1	MOUE FLANGE FROM FLANGEAREA TO WORKTABLE A152B0 G1 A152B3 P1 A0 1.00 309	0.
2	POSITION FLANGE 'FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	_
3	Al B0 G1 Al B0 P6 A0 1.00 9 FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3	90.
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  Al B0 G1 Al B0 P3 F6 Al B0 P1 A0 1.00 14	١0.
4	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	
	· · · · · · · · · · · · · · · · · · ·	0.
5	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4	
6	Al BO G1 M6 X6 IO AO 4.00 56 POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT	υ.
	WORKTABLE F 4 A1 B3 G1 A1 B0 P6 A0 4.00 36	Λ
7	POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE F 4	٠.
	A1 B0 Gl Al B0 P6 A0 4.00 36	0.
8	OPERATE RIVETGUN AT WORKTABLE PROCESS F 4  Al B0 G1 M6 X3 IO A0 4.00 44	0.
	TOTAL TMU 540	0.

Type D,EM,CT,EX,T,W <or H for help> ?

# SHEETMETAL (TEMPORARILY) RIVITED FLANGE

8" X 6" FLANGE

RIVIT FLANGE TOTAL TMU. 5400 3.MIN

– ny vojenje program program i podpisanje na programa i program programa programa – podpisanje podpisanje programa

File Description ? RIVET FLANGE TO VENT DUC (TEMPORARILY)

Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12 FLANGE.M01

RIVET FLANGE ON VENT DUCT WITH RIVET-GUN AT SHEETMETAL SHOP PER FLANGE OFG: 4 28-JUN-83

RIVET TEMPORARILY FOR SHIPPING AND FITTING

\* 8'X6' GALV. FLANGE

- \* ATTACH FLANGE TO VENT DUCT TEMPORARILY--
- $\star$  --FOR SHIPPING AND PRELIMINARY FITTING

FITTER BEGINS AT WORKTABLE

MOUE FLANGE FROM FLANGE AREA TO WORKTABLE	1 00	3090.
POSITION FLANGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	3090.
Al BO Gl Al BO P6 AO	1.00	90.
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
WORKTABLE F 4		
Al BO G1 Al BO P6 AO	4.00	360.
OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4  Al BO G1 H6 X6 IO A0	4.00	560.
POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4		
-Al BO G1 Al BO P6 AO	4.00	360.
POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE F4		
A1 B0 G1 Al B0 P6 A0	4.00	360.
	4 00	4.4.0
AL BU GI M6 X3 10 AU	4.00	440.
	A152B0 G1 A152B3 P1 A0  POSITION FLANGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE  Al B0 Gl Al B0 P6 A0  FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3  WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  Al B0 G1 Al B0 P3 F6 A1 B0 P1 A0  POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4  Al B0 G1 Al B0 P6 A0  OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4  Al B0 G1 H6 X6 IO A0  POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4  -Al B0 G1 Al B0 P6 A0  POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	A152B0 G1 A152B3 P1 A0 1.00  POSITION FLANGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE  A1 B0 G1 A1 B0 P6 A0 1.00  FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 1.00  POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4  A1 B0 G1 A1 B0 P6 A0 4.00  OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4 A1 B0 G1 H6 X6 IO A0 4.00  POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4  -A1 B0 G1 A1 B0 P6 A0 4.00  POSITION RIVETGUN FROM WORKTABLE TO RIVET AT WORKTABLE F4  A1 B0 G1 A1 B0 P6 A0 4.00  OPERATE RIVETGUN AT WORKTABLE PROCESS F 4

TOTAL TMU 5400.

File Description ? RIVET FLANGE TO VENT DUC (TEMPORARILY)
Output to line-printer <Y or N> ?.

# 12." x 15" to 21"x 24" BELLMOUTH

FAB	28251	17 MIN
MARK OUT	90160	54 MIN.
WELD	16080	10 MIN.
TOTAL TMU.	134491	80 TMU.

#### Please input file <BMOUTH.M30> ?

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer (Y or N> ? N

(39,101)

FIT • W12 BMOUTH.M30

MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL SHOP PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL
- \* 12'X15' TO 21'X24' BELLMOUTH
- \* MARK OUT WITH TEMPLATE
- \* CENTER PUNCH BOLT HOLES

FITTER BEGINS AT WORKTABLE

1	POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F $4$		
2	A1 B0 G1 A1 B0 P6 A0 POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4	4.00	360.
2	Al BO G1 A6 BO P6 AO MARK LINES ON SHEETMETAL Al- WORKTABLE 5 DIGITS USING	4.00	560.
J	AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R16 )A1 BO P1 A0 (12)	1.00	2200.
4	POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12		
5	Al B0 G1 Al B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL A-f WORKTABLE 1 STRIKE USING	12.00	1080.
	HAMMER AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) Al BO G1 (A1 B0 PO F3 )A1 B0 P1 A0 (12)	1.00	520.
6	REPLACE WEIGHTS FROM TE AT WORKTABLE TO WORKTABLE WITH 3 ST 3 STEPS F 4	4 00	4.4.0
7	Al B0 G1 A6 B0 F3 A0 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 4	4.00	440.
8	Al BO G1 Al BO F3 AO MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	4.00	240.
	USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12)	1.00	2200.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
10	ASIDE PF 40 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (40)  MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	2040.
10	USING BLACKPEN AT WORKTARLE AND ASIDE  Al B0 G1 Al B0 P1 R3 Al B0 P1 A0	1.00	90.

TOTAL TMU 9730.

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH
Output to line-printer <Y or N) ?

File Description ? MARK OUT 2X2 WIRE MESH FOR BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12 BMOUTH.M31

MARK OUT 2X2 WIRE MESH FOR BELLMOUTH WITH BLACK-PEN AT SHEETMETAL

SHOP

PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL

\* 12'X15' TO 21'X24' BELLMOUTH

FITTER BEGINS AT WORKTABLE

	MOVE COMPOUND CUTTER SNIPS FROM TOOLROOM TO FLANGE AREA A96 B0 G1 A152B0 P1 A0	1.00	2500,
2	CUT SHEETMETAL [2x2 WIRE MESH] AT FLANGEAREA 1 CUT USING SNIPS AT FLANGEAREA AND ASIDE PF 20 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20)	1 00	0.4.0
3	MOVE SHEETMETAL [2X2 WIRE MESH] AND SNIPS TO WORKTABLE	1.00	040.
Ū	A152B3 G1 A1 B0 P1 A0	1.00	1580.
4	MEASURE DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 (4567)		
	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4)	1.00	1400.
5	MARK DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO F1 R3 )A1 BO P1 AO (4)	1.00	240.
6	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL WIRE MESH AT WORKTABLE F 2		
7	Al B0 G1 Al B0 P6 A0 MARK LINES ON SHEETMETAL [2x2 WIRE MESH] AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2.00	180.
	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)	1.00	400.

Type D,EM,CT,EX,T,W <or H for help> ?

17,070

7340.

TOTAL TMU

## File Description ? MARK OUT SCREEN FRAME FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

output to line-printer < Y or N> ? N		
( 39, 101)  FIT .W12 BMOUTH.M32  MARK OUT SCREEN FRAME FOR BELLMOUTH WITH AWL AT SHEETMET OFG: 4 28-JU NASSCO SHEETMETAL SHAPE 14  * 20 GAUGE GALV. SHEETMETAL  * 12 'X13' TO 21'X24' BELLMOUTH  * HARK OUT WITHOUT TEMPLATE  * CENTER PUNCH BEND LINES  FITTER BEGINS AT WORKTABLE		
1 MEASURE <b>DIMENSIONS ON</b> SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 5 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 F1 M32 )A1 B0 P1 A0 (5)	1.00	1740,
2 MARK DIEMNSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (9)	1.00	490.
3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2 A1 B0 G1 A1 B0 P6 A0	2.00	180.
4 MARK LINE FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE F 2 A1 B0 G1 Al B0 P1 R16 Al B0 P1 A0	2.00	
5 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8 Al B0 G1 Al B0 F6 A0	8.00	720.
6 MARK LINES FROM SQUARE 45 DEGREES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE F	0.00	720.
Al B0 G1 A0 B0 (F1 Al R16 )A1 B0 P1 A0 (45) 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	8.00	65120.
A1 B0 G1 A1 B0 P6 A0 8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	8.00	720.
HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8) 9 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	360.
USING REDPEN AT WORKTABLE AND ASIDE  Al B0 G1 A1 B0 P1 R16 A1 B0 P1 A0  10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	220.
WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND' ASIDE PF 16 ( $4$ 5 $6$ $7$ )		
A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (16)  11 MARK <b>IDENTIFICATION</b> INFORMATION <b>ON</b> SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND  ASIDE PF 26 ( 4 5 6 7 )	1.00	840.
Al B0 G1 (Al B0 P1 R3 )Al B0 P1 A0 (26)  12 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2	1.00	1340.
A1 B0 G1 A6 B0 F3 A0 13 MOVE CART FROM WORKTABLE TO SMALLSHEAR	2.00	220.
A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

73090.

file Description ? MARK OUT SCREEN FRAME FOR BELLMOUTH Output to line-printer <Y or N> ?

#### File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

# Jutput to line-printer <Y or N> ? N

( 39, 101) FIT ● W12 BMOUTH.M33

SHEAR SHEETMETAL FOR BELLMOUTH WITH SMALL 8FT. SHEAR AT

SHEETMETAL SHOP PER BELLMOUTH

OFG: 4 28-JUN-83

TOTAL TMU

NASSCO SHEETMETAL SHAPE 14
\* 20 GAUGE GALV. SHEETMETAL
\* 12'X15' TO 21'X24' BELLMOUTH
FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM SMALLSHEAR WITH 4 STEPS F		T A:	r sm	ALLSI	IEAR	TO			
		_	В0	G1	Аб	В0	F6	A0	3.00	420.
2	PUSH FOOTPEDAL AT SMALLSHE				_			_		
	<del>-</del>	A1		G1	Ml	Хб	IO	A0	1.00	90.
3	POSITION SHEETMETAL FROM							AR F 8	0.00	700
	-			G1	Al	В0	Р6	A0	8.00	720.
4	PUSH FOOTPEDAL AT SMALLSHE		_				Τ.Ο	7.0	0.00	700
_	-		B0	G1	M1	X6	IO	A0	8.00	720.
5	REPLACE SHEETMETAL FROM S			±AR	TO CA	AK.I.	ΑΊ.			
	SMALLSHEAR WITH 10 STEPS		-	<b>~</b> 1	216	ъ.	D 3	7. 0	0.00	420.
_	-	A1		G1		В0	Р3	A0	2.00	420.
6	MOVE CART FROM SMALLSHEAR	Δ]		KTAB G1		DЗ	D1	7. 0	1.00	730.
	F	ΗL	В0	GΤ	A67	В3	P1	A0	1.00	/30.
7										

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH
Output to line-Printer <Y or N> ?

. د. بير با درون

3100.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH

OutPut to line-printer <Y or N> ? N

	-		
FIT	,101) .W12 BMOUTH.M34  SHEAR RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT SHEETMETAL SHELLMOUTH OFG: 4 29-JUN NASSCO SHEETMETAL SHAPE 14 * 20 GAUGE GALV. SHEETMETAL * 12'X15' TO 21'X24' FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P3 A0 MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	2.00	220,
4	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8		
4	Al B0 G1 Al B0 P6 A0 OPERATE UNISHEAR AT WORKTABLE PROCESS F 8	8.00	720.
_	Al B0 G1 M6 X173I0 A0	8.00	14480,
5	PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F		
_		4.00	240.
6	CUT 45DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al B0 G1 (Al B0 P3 C3 )Al B0 P1 A0 (4)	1.00	320.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
0	Al B0 G1 A6 B0 F3 A0	2.00	220.
8	MOUE CART FROM WORKTABLE TO ROLLER  A1 B0 G1 A54 B0 F1 A0	1.00	570.
			<i>3,0</i>

TOTAL TMU

18740.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH
Output to line-printer <Y or N> ?

---

### File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12 BMOUTH.M35

FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL

SHOP

PER BELLMOUTH OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL \* 12 'X15' TO 21'X24' BELLMOUTH

\* CHECK RADIUS WITH TEMPLATE

FITTER BEGINS AT WORKBENCH

1	POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4		
_	Al B0 G1 A6 B0 F6 A0	4.00	560.
2	FASTEN BOLT [ROLLS] TO SHEETMETAL AT HAND-ROLLER AT WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2		
	Al BO G1 A1 BO P1 F6 AO BO PO AO	2.00	200.
3	CRANK HAND-ROLLER AT WORKBENCH 3 REV F 16		
4	Al BO G1 M6 XO IO AO	16.00	1280.
4	PLACE SHEETMETAL FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL2 [CHEC RADIUS] AT WORKBENCH F 4		
	Al BO G1 Al BO P3 AO	4.00	240.
5	REPLACE SHEETMETAL FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4		
	A1 B0 G1 A6 B0 P3 A0	4.00	440.
6	MOVE CART FROM WORKBENCH TO LEAFBRAKE		
	Al B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU

2850.

File Description ? FORM RADIUS FOR BELLMOUTH Output to line-printer <Y or N> ?

#### File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-Printer <Y or N> ? N

( 39, 101)

FIT .W12 BMOUTH.M36

BEND SHEETMETAL FOR BELLMOUTH WITH LEAFBRAKE AT SHEETMETAL SHOP PER BELLMOUTH OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETM
- \* 12'X15' TO 21'X24' BELLMOUTH
- \* BEND FRAME AS INDICATED
- \* KINK UP FLANGE ON BELLMOUTH SECTIONS

FITTER BEGINS AT LEAFBRAKE

1	POSITION	SHEETM	ETZ	AL FROM	CART	AT	LEAFBRAKE	TO
	LEAFBRAK	E WITH	4	STEPS				

	TEALDVAVE MIIU 4 SIEES									
_		Al	В0	G1	Аб	В0	Pб	A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER	PROC	CESS							
		Al	В0	G1	М6	X16	ΙO	A0	1.00	240.
3	POSITION SHEETMETAL FROM	M LE.	AFBR	AKE	TO L	EAFBF	RAKE	F 7		
		Al	В0	G1	Al	В0	Р6	A0	7.00	630.
4	OPERATE LEAFBRAKE-LEVER	PROC	CESS	F 7						
		AL	в0	G1	Мб	X16	IO	A0	'7.00	1680.
5	REPLACE SHEETMETAL FROM	LEA	FBRA	KE T	O CA	RT A'	$\Gamma$ LE	AFBRAKE		
	F5									
		A1	в0	G1	Al	в0	Р3	A0	5.00	300.
	HOVE CART FROM LEAFBRAKE	רבי י	SDO	rweli	שבר					
ے ر	HOVE CART FROM BEAF BRAKE					ъ0	ъ1	7. 0	1 00	
j		A1	В0	G1	A54	В0	Р1	A0	1.00	570.
-										

TOTAL TMU 3560.

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?-

# File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 101)

FIT ● W12 BMOUTH.M37

WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL
- \* 12'X15' TO 21'X24' BELLMOUTH
- \* SPOT WELDING MACHINE REQUIRESS THE--
- \* --ASSISTANCE OF A DESIGNATED OPERATOR

FITTER BEGINS AT SPOTWELDER

1	100111011 01101111111111111111111111111	ГО	
	SPOTWELDER WITH 4 STEPS	1 00	1.40
0	A1 B0 G1 A6 B0 P6 A0	1.00	140.
2	POSITION SHEETMETAL2 [2X2 WIRE MESH] FROM SPOTWELDER T	1.0	
	SHEETMETAL [FRAME] AT SPOTWELDER WITH 4 STEPS	1 00	1.40
_	A1 B0 G1 A6 B0 P6 A0	1.00	140.
3	MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER		
	A54 B3 G1 AS4 B0 P1 A0	1.00	1130.
4	GRIP SHEETMETAL TO SHEETMETAL AT SPOTWELDER USING		
	VISEGRIPS AT SPOTWELDER AND ASIDE PF 5 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (	(5) 1.00	290.
5	POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER F 5	50	
	Al BO G1 A1 BO P6 A0	50.00	4500.
6	OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 50		
	Al BO G1 M6 X6 IO AO	50.00	7000.
7	REPLACE SHEETMETAL FROM SPOTWELDER TO- CART AT		
	SPOTWELDER WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
8	MOVE VISEGRIPS FROM SPOTWELDER TO WORKTABLE		
-	Al B0 G1 A54 B3 P1 A0	1.00	600.
9	MOVE CART FROM SPOTWELDER TO WELDOUT		
_	A54 B0 G1 A42 B3 P1 A0	1.00	1010.
	110 1 20 01 1112 20 11 110	1.00	

TOTAL TMU 14920.

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH Output to line-printer <Y or N> ?

#### File Description ? TACK WELD SHEETMETAL BELLMOUTH

# Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12 BMOUTH.M38

TACK WELD SHEETMETAL BELLMOUTH WITH TACK-WELDER AT SHEETMETAL

PER BELLMOUTH' OFG: 4 29-JUN-83

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL

\* 12'X15' TO 21'X24' BELLMOUTH

\* TACK WELD CORNER EDGES

FITTER BEGINS AT WELDOUT

1	PLACE SHEETMETAL F	FROM CART	AT	WELDOUT	TO	TABLE	AT		
	WELDOUT WITH 4 ST	EPS F 2							
		A1	0	G1 A	6 E	30 P3	A0	2.00	220.
2	MOVE VICECOIDS EDOI	M MODETAD	י ים ד	שר עבד שר	ידידו				

2 MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT

A54 B3 G1 A54 B3 P1 A0 1.00 1160.

3 GRIP SHEETMETAL TO SHEETMETAL AT T AT WELDOUT USING VISEGRIPS AT WELDOUT AND ASIDE PF 8 ( 4 5 6 7 )

A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (8) 1.00 440.

4 POSITION TAKWELDER FROM WELDOUT TO SHEETMETAL AT WELDOUT F 20

A1 B0 G1 A1 B0 P6 A0 20.00 1800.

5 OPERATE TAACKWELDER AT WELDOUT PROCESS F 20

A1 B0 G1 M6 X3 I0 A0 20.00 2200.

6 REPLACE SHEETMETAL FROM TABLE AT WELDOUT TO CART AT WELDOUT WITH 4 STEPS

Al BO G1 A6 BO P3 A0 1.00 110.

7 MOVE CART FROM WELDOUT TO WORKTABLE

A1 B0 G1 A54 B3 P1 A0 1.00 600.

TOTAL TMU 6530.

File Description ? TACK WELD SHEETMETAL BELLMOUTH
Output to line-printer <Y or N> ?

()

# File Description ? WELD BELLMOUTH

Output to line-printer <Y or N> ? N

(39 WELI	, 3) .wo1 BMOUTH.M39		
METI	WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDIN	NG BOOTH	
PER	BELLMOUTH OFG: 4 18-JU		
	WELDING NASSCO SHEETMETAL SHAPE 14		
	* 20 GAUGE GALV. SHEETMETAL * 12'X15' TO 21'X24'		
	* WELD SHEETMETAL IN WELD AREA BOOTH		
	* WELDOR PERFORMS THE WORK		
	* FITTER TRANSPORTS SHEETMETAL		
	FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART		
	AT WORKTABLE WITH 4 STEPS	1 00	110
2	A1 B0 G1 A6 B0 P3 A0	1.00	110.
۷	FITTER MOUE CART FROM WORKTABLE TO WELDTABLE  A1 B0 G1 A131B3 P1 A0	1.00	1370.
3	PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO		
	WELDTABLE WITH 4 STEPS	1 00	110
1	A1 B0 G1 A6 B0 F3 A0 WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT	1.00	110.
ı	WELDOK FOSH FOWER SOFFHI BOTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS		
	A3 B0 G1 Ml X0 IO A32	1.00	370.
5	WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES		
	TO ON AT WELDMACHINES  Al B0 G1 M1 X0 IO Al	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1	1.00	10.
	WRIST-TURN USING HAND	1 00	ПО
7	A1 B0 G1 A1 B0 P1 F3 A0 B0 P0 A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
,	WELDOK TORN COTFOT CONTROL LEVER FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES		
	Al BO G1 M3 XO IO A1	1.00	60.
8	WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE		
	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4  A3 B3 G1 A1 B0 P6 A0	4.00	560.
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4		
1.0	Al BO G1 M1 X10 IO AO	4.00	520.
10	WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4		
	ASSEMBLI AI WELDIADLE F 4  Al BO Gl Al BO P6 A0	4.00	360.
11	FULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4	4 00	1.00
1 0	A1 B0 G1 M1 X0 IO A1 WELDOR POSITION WELDGUN FROM WELDTABLE TO SHEETMETAL	4.00	160.
12	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 4		
	Al BO G1 Al B6 P6 AO	4.00	600.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 10	10.00	8900.
14	Al B0 G1 M6 X81 IO A0 PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4	10.00	0,000.
	A1 B0 G1 Ml X0 IO Al	4.00	160.
M	ELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 10		
	ARM-STROKES USING WIREBRUSH Al- WELDTABLE AND-ASIDE PF 1 0 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 C10 )A1 B0 P1 A0 (10)	1.00	1240.

BMoutH M39

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

Al B0 G1 A6 B0 P3 A0 1.00 110. 17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE Al B0 G1 A131B0 P1 A0 1.00 1340.

TOTAL TMU 16080.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

60

The state of the s

File Description ASSEMBLE BELLMOUTH

Output to line-printer <Y or N> ? N

WORKTABLE F 4

( 39, 101)  FIT .W12  ASSEMBLE BELLMOUTH WITH DRILLMOTOR AT SHEETMETAL SHOP  PER BELLMOUTH  OFG: 4 29-JUN-8	3
NASSCO SHEETMETAL SHAPE 14	
* 20 GAUGE GALV. SHEETMETAL	
* 12'X15' TO 2X24' BELLMOUTH * BOLT SCREEN FRAME TO BELLMOUTH	
* GRIND WELDS SMOOTH	
FITTER BEGINS AT WORKTABLE	
1 PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	00 110.
2 PLACE SHEETMETAL [BELLMOUTH] TO SHEETMETAL [SCREEN	00 110.
FRAME] AT WORKTABLE  Al B0 G1 A1 B0 P3 A0 1.	00 60.
3 FASTEN 5-32DRILLBIT PILOT TO DRILLMOTOR AT WORKTABLE 3	•••
WRIST-TURNS USING HAND AT WORKTABLE'	00 100
Al B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 1. 4 PLACE VISEGRIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	00 100.
A1 B0 G1 A1 B0 P3 A0 4.	00 240.
5 GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING	
VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (4) 1.	00 240
6 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	210
WORKTABLE F 12	
A1 B0 G1 A1 B0 P6 A0 12. 7 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12	00 1080.
A1 B0 G1 M6 X6 IO A0 12.	00 1680.
8 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3	
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	0.0 1.40
A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 1. 9 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	00 140.
WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	
	00 140.
10 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12	
A1 B0 G1 A1 B0 F6 A0 12.	00 1080.
11 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 12	
	00 1680.
12 POSITION 1 / 4'BOLT AND-NUT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 12	
A1 B0 G1 A1 B0 P6 A0 12.	00 1080.
13 FASTEN BOLT TO SHEETMETAL [NUT] AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 12	
( 4 5 6 7 )	
Al B0 G1 (A1 B0 P3 F24 )A1 B0 F1 A0 (12) 1. 14 MOVE GRINDER FROM TOOLROOM TO WORKTABLE	00 3400.
	00 1970.
15 POSITION GRINDER FROM WORKTABLE TO SHEETMETAL AT	

15 M	00	TH	40
------	----	----	----

						Al	В0	G1	A1	в0	Pб	A0	4.00	360.
16	OPERATE	GRIN:	DER	AT	WORKT	TABLE	PT	7 S	F 4					
										Xl6	IO	A0	4.00	960.
17	INSPECT													
		A0	В0	G0	A0	В0	Ρ0	T10	A0	В0	Ρ0	A0	1.00	100.
												шоша т	TDN/TT	1 4 4 2 0
												TOTAL	T IVI U	14420.

File Description ? ASSEMBLE BELLMOUTH
Output to line-printer (Y or N> ?

# SHEETMETAL BELMOUTH

# 6"x8" to 10/2 x 12/2" BELLMOUTH

FAB	74630	45
MARK out	26040	16
WELD	12080	7
TOTAL TMU.	129,346	78

## File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

Output to line-printer <y n="" or=""> ? N</y>		
( 39, 101)  FIT .W12 BMOUTH.MO1  MARK OUT SHEETMETAL FOR BELLMOUTH WITH AWL AT SHEETMETAL  PER BELLMOUTH OFG: 4 24-JU  NASSCO SHEETMETAL BELLMOUTH  * 20 GAUGE GALV. SHEETMETAL  * 6'X8' TO 10 1/2'X 12 1/2' BELLMOUTH  * MARK OUT WITH TEMPLATE  * CENTER PUNCH BOLT HOLES  FITTER BEGINS AT WORKTABLE		
1 POSITION TEMPLATE TO SHEETMETAL AT WORKTABLE F 4 Al B0 G1 A1 B0 P6 A0 2 POSITION WEIGHT FROM WORKTABLE TO TEMPLATE AT WORKTABLE WITH 3 STEPS F 4	4.00	360.
A1 B0 G1 A6 B0 P6 A0 3 MARK LINES ON SHEETMETAL FROM TEMPLATE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6	4.00	560.
Al B0 G1 (A1 B0 P1 R16 )A1 B0 F1 A0 (12) 4 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	2200.
Al B0 G1 A1 B0 P6 A0 5 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	4.00	360.
A1 B0 G1 (A1 B0 PO F3 )A1 B0 F1 A0 (4) 6 REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 4	1.00	200.
Al B0 G1 A6 B0 P3 A0 7 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE F 4	4.00	440,
Al B0 G1 A1 B0 P3 A0 8 MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING REDPEN AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	4.00	240.
Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (12) 9 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	1.00	2200.
ASIDE PF 40 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (40)  10 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT  USING BLACKPEN AT WORKTABLE AND ASIDE	1.00	2040.
A1 B0 G1 A1 B0 P1 R3 A1 B0 F1 A0	1.00	90.

8690.

TOTAL TMU

File Description ? MARK OUT SHEETMETAL FOR BELLMOUTH Output to line-printer (Y or N> ?

File Description ? MARK OUT 2X2 WIRE MESH FOR BELLMOUTH
Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12 BMOUTH.MO2

MARK OUT 2X2 WIRE MESH FOR BELLMOUTH WITH BLACK-FEN AT SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 24-JUN-83

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' TO 10 1/2'X 12 1/2' BELLMOUTH
- \* MARK OUT WITHOUT TEMPLATE
- \* CUT 1/2'X 1/2' HARDWARE CLOTH FROM ROLL FITTER BEGINS AT FLANGEAREA

1	MOVE COMPUND CUTTER SNIPS FROM TOOLROOM TO FLANGEAREA A152BO G1 A152BO F1 A0	1.00	3060.
2	CUT SHEETMETAL [2X2 WIRE MESH3 AT FLANGEAREA.1 CUT USING SNIPS AT FLANGEAREA AND ASIDE PF 20 ( 4 5 6 7 )		
3	Al B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (20) MOUE SNIPS AND SHEETMETAL [2X2 WIRE MESH] FROM	1.00	1040.
J	FLANGEAREA TO WORKTABLE	1 00	1 5 0 0
4	A1 B0 G1 A152B3 P1 A0 MEASURE DIMENSIONS ON SHEETMETAL [2X2 WIRE MESH] AT	1.00	1580.
	WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
_	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (4)	1.00	1400.
5	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4)	1.00	240.
6	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL	_,,,	
	[WIRE MESH] AT WORKTABLE F 2.  Al B0 G1 Al B0 P6 A0	2.00	180.
7	MARK LINES ON SHEETMETAL [2X2 WIRE MESH] AT WORKTABLE 5 DIGITS USING BLACKPEN AT WORKTABLE AND ASIDE PF 2 ( 4		
	5 6 7 )	1 00	400
	A1 B0 G1 (A1 B0 F1 R16 )A1 B0 P1 A0 (2)	1.00	400.

File Description ? MARK OUT 2X2 WIRE MESH FOR BELLMOUTH Output to line-printer (Y or N> ?

7900.

TOTAL TMU

File Description ? MARK OUT SCREEN FRAME FOR BELLMOH

Output to line-printer <Y or N> ? N  $\,$ 

( 39,101)  FIT .W12 BMOUTH.MO3  MARK OUT SCREEN FRAME FOR BELLMOUTH WITH AWL AT SHEETMETAL  PER BELLMOUTH OFG: 4 28-JUN-8  NASSCO SHEETMETAL SHAPE 14  * 20 GAUGE GALV. SHEETMETAL  * 6'X8' TO 10 1/2'X12 1/2'  * MARK OUT WITHOUT TEMPLATE  * CENTER PUNCH BEND LINES  FITTER BEGINS AT WORKTABLE	
	00 1740,
2 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 9 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (9) 1. 3 POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	00 490.
WORKTABLE F 2	00 180.
5 POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT	00 440.
WORKTABLE F 8  Al B0 G1 Al B0 P6 A0 8. 6 MARK LINES FROM SQUARE [45 DEGREES] TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF	00 720.
8 ( 4 5 6 7 ) Al BO G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (8) 1. 7 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	00 1480.
WORKTABLE F 8  Al B0 G1 A1 B0 P6 A0 8. 8 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	00 720.
HAMMER AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al B0 G1 (A1 B0 PO F3 )A1 B0 P1 A0 (8) 1. 9 HARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	00 360,
USING REDPEN AT WORKTABLE AND ASIDE  Al B0 G1 A1 B0 P1 R16 A1 B0 P1 A0 1.  10 MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT  WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND	00 220.
ASIDE PF 16 ( 4 5 6 7 )	00 840.
ASIDE PF 26 ( 4 5 6 7 )  Al B0 G1 (Al B0 Pl R3 )Al B0 F1 A0 (26) 1.  12 PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE  WITH 4 STEPS F 2	00 1340.
Al BO G1 A6 BO P3 AO 2. 13 MOUE CART FROM WORKTABLE TO SMALLSHEAR	00 220. 00 700,

TOTAL TMU 9450.

File Description ? MARK OUT SCREEN FRAME' FOR BELLMOH Output to line-printer <Y or N> ?

26040

#### File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12 BMOUTH.MO4

SHEAR SHEETMETAL FOR BELLMOUTH WITH SMALL 8FT. SHEAR AT

SHEETMETAL SHOP

PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL \* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH

FITTER BEGINS AT SMALLSHEAR

Τ	POSITION S	SHEE.I.WE.	I.AL	FROM	CAR	.T. A	T. S	SMALLSE	1EAR	.I.O		
	SMALLSHEA	AR WITH	4 S	TEPS	F 3							
					A1	в0	G1	A6	в0	Р6	Α0	

2 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS A1- B0 G1 Ml X6 IO A0 1.00 90. 3 POSITION SHEETMETAL FROM SMALLSHEAR TO SMALLSHEAR F 8

A1 B0 G1 A1 B0 P6 A0 8.00 720. 4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS F 8

A1 B0 G1 M1 X6 IO A0 8.00 720. 5 REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT

SMALLSHEAR WITH 10 STEPS F 2 Al B0 G1 Al6 B0 P3 A0 2.00 420.

6 MOUE CART FROM SMALLSHEAR TO WORKTABLE . A1 B0 G1 A67 B3 P1 A0 1.00 730.

TOTAL TMU 3100.

3.00

420.

File Description ? SHEAR SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH
Output to line-printer <Y or N> ? N

(39, 101)

FIT .W12

BMOUTH.MO5

SHEAR SHEETMETAL RADIUS FOR BELLMOUTH WITH UNI-SHEAR AT SHEETMETAL SHOP
PER BELLMOUTH OFG: 4 28-JUN-83

PER BELLMOUTH
NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL

- \* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH
- \* CUT 45 DEGREE MITER CUTS IN FRAME--
- x --BEFORE BENDING

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	MOUE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	1 00	1070
3	A96 B0 G1 A96 B3 P1 A0 POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	1.00	1970.
	A1 B0 G1 A1 B0 P6 A0	8.00	720.
4	OPERATE UNISHEAR AT WORKTABLE PROCESS F 8	0 00	1 4 4 0 0
5	A1 B0 G1 M6 X173I0 A0 PLACE SNIPS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F	8.00	14480.
	Al BO G1 Al BO P3 AO	4.00	240.
6	CUT 45 DEGREE CORNERS ON SHEETMETAL AT WORKTABLE 2 CUTS USING SNIPS AT WORKTABLE AND ASIDE F 4		
	Al BO G1 AO BO (P3 A1 C3 )A1 BO P1 AO (45)	4.00	12760.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
8	MOUE CART FROM WORKTABLE TO ROLLER A1 B0 G1 A54 B0 P1 A0	1.00	570 .
	TOTAL TM	IJ	31180.

File Description ? SHEAR SHEETMETAL RADIUS FOR BELLMOUTH Output to line-printer (Y or N> ? 34280

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N) ? N\

%Invalid command.

Output to line-Printer <Y or N> ? N

(39, 101)

FIT.W12 BMOUTH.M06

FORM RADIUS FOR BELLMOUTH WITH HAND OPERATED ROLLER AT SHEETMETAL

SHOP

OFG: 4 28-JUN-83 PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL

\* 6'X8' TO 10 1/2' X 12 1/2' BELLMOUTH

\* CHECK RADIUS WITH TEMPLATE FITTER BEGINS AT WORKBENCH

1 POSITION SHEETMETAL2 FROM CART AT WORKBENCH TO HAND-ROLLER AT WORKBENCH WITH 4 STEPS F 4

A1 в0 G1 A6 B0 4.00 560. 2 FASTEN BOLT [ROLLS] TO SHEETMETAL2 AT HAND-ROLLER AT WORKBENCH 3 SPINS USING FINGERS AT WORKBENCH F 2

Al B0 G1 A1 B0 P1 F6 A0 B0 P0 A0 200. 2.00 3 CRANK HAND-ROLLER AT WORKBENCH 3 REVS F 16

Al B0 G1 M6 X0 IO AO 4 PLACE SHEETMETAL2 FROM HAND-ROLLER AT WORKBENCH TO SHEETMETAL [CHECK RADIUS] AT WORKBENCH F 4

Al B0 G1 A67 B3 P3 A0 4.00 3000.

5 REPLACE SHEETMETAL2 FROM WORKBENCH TO CART AT WORKBENCH WITH 4 STEPS F 4

A67 B3 G1 A6 B0 P3 A0 4.00 3200. 6 MOUE CART FROM WORKBENCH TO LEAFBRAKE

Al B0 G1 A10 B0 P1 A0 1.00 130.

> TOTAL TMU 8370.

16.00

1280.

File Description ? FORM RADIUS FOR BELLMOUTH

Output to line-printer <Y or N> ?

42,650

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ? N

( 39, 101)

FIT .W12

BMOUTH.MO7

BEND SHEETMETAL FOR BELLMOUTH WITH LEAFBRAKE AT SHEETMETAL SHOP PER BELLMOUTH OFG: 4 28-JUN-83

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
- \* BEND FRAME UP AS INDICATED
- \* KINK UP FLANGE ON BELLMOUTH SECTIONS

FITTER BEGINS AT LEAFBRAKE

	1 POSITION SHEETMETAL2 FROM CART AT LEAFBRAKE TO		
	LEAFBRAKE WITH 4 STEPS  Al B0 G1 A6 B0 P6 A0	1.00	140.
	2 OPERATE LEAFBRAKE-LEVER PROCESS A1 B0 G1 M6 X16 IO A0	1.00	240.
	3 POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAKE F 7 A1 B0 G1 Al B0 P6 A0	7.00	630.
	4 OPERATE LEAFBRAKE-LEVER PROCESS F 7 Al B0 G1 M6 X16 IO A0	7.00	1680.
	5 REPLACE SHEETMETAL FROM LEAFBRAKE TO CART AT LEAFBRAKE F 5		
	Al BO G1 Al BO P3 AO  6 MOVE CART FROM LEAFBRAKE TO SPOTWELDER	5.00	300.
1	A1 B0 G1 A54 B0 P1 A0	1.00	570.

TOTAL TMU 3560.

File Description ? BEND SHEETMETAL FOR BELLMOUTH

Output to line-printer <Y or N> ?

46,210

File Description ? SPOT WELD SCREEN ASSEMEBLY FOR BELLMOUTH Output to line-printer <Y or N> ? N

(39,101)

FIT

BMOUTH.M08

WELD SCREEN ASSEMBLY FOR BELLMOUTH WITH SPOT WELDER AT SHEETMETAL SHOP OFG: 4 28-JUN-83

PER BELLMOUTH

NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL \* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH
- \* SPOT WELDING MACHINE REQUIRES THE--
- \* --ASSISTANCE OF A DESIGNATED OPERATOR

FITTER BEGINS AT SPOTWELDER

1	POSITION SHEETMETAL2 [FRAME] FROM CART AT SPOTWELDER TO SPOTWELDER WITH 4 STEPS		
2	A1 B0 G1 A6 B0 P6 A0 POSITION SHEETMETAL2 [1 / 2'X1 / 2' HARDWARE CLOTH] FROM SPOTWELDER TO SHEETMETAL [FRAME] AT SPOTWELDER WITH 4 STEPS	1.00	140.
	A1 B0 G1 A6 B3 P6 A0	1.00	170.
3	MOUE VISEGRIPS FROM WORKTABLE TO SPOTWELDER		
	A1 B0 G1 A54 B0 P1 A0	1.00	570.
4	GRIP SHEETMETAL2 TO SHEETMETAL2 AT SPOTWELDER USING		
	VISEGRIPS AT SPOTWELDER AND ASIDE PF 5 ( 4 5 6 7 )		
5	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (5)	1.00	290.
J	POSITION SHEETMETAL2 FROM SPOTWELDER TO SPOTWELDER F 50	<b>50.00</b>	4=00
6	Al- B0 G1 A1 B0 P6 A0 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 50	50.00	4500.
6	OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 50  A1 B0 G1 M6 X6 SO A0	50.00	7000
7	REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT	50.00	7000.
,	SPOTWELDER WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
8	MOVE CART FROM SPOTWELDER TO WELDOUT	1.00	110.
	Al B0 G1 A42 B3 P1 A0	1.00	480.
9	MOUE VISEGRIPS FROM SPOTWELDER TO WORKTABLE		
	A42 B0 G1 A54 B3 P1 A0	1.00	1010.

File Description ? SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH Output to line-printer <Y or N> ?-

60,480

TOTAL TMU 14270.

File Description ? TACK WELD SHEETMETAL BELLMOUTH

Output to line-Printer <Y or N> ? N

( 39, 101)

FIT .W12

BMOUTH.MO9

TACK WELD SHEETMETAL BELLMOUTH WITH TACK WELDER AT SHEETMETAL SHOP

PER BELLMOUTH

OFG: 4 28-JUN-83

TOTAL TMU

NASSCO SHEETMETAL SHAPE 14

\* 20 GAUGE GALV. SHEETMETAL

\* 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH

\* TACK WELD CORNER EDGES

\* COMPLETE WELDING AT WELD BOOTH

\* SEE BMOUTH.M10

FITTER BEGINS AT WELDOUT

1	PLACE SHEETMETAL2 FROM CART AT WELDOUT TO TABLE AT WELDOUT WITH 4 STEPS F 2		
	A1 B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE VISEGRIPS FROM WORKTABLE TO WELDOUT		
	A54 B3 G1 A54 B3 P1 A0	1.00	1160.
3	GRIP SHEETMETAL2 TO SHEETMETAL2 AT TABLE AT WELDOUT		
	USING VISEGRIPS AT WELDOUT TABL AND ASIDE PF 8 ( 4 5 6		
	7 )		
	Al BO G1 (A1 BO P3 C1 )A1 BO P1 AO (8)	1.00	440.
4	POSITION TACKWELDER FROM WELDOUT TO SHEETMETAL AT		
	WELDOUT TABLE F 20		
	A1 B0 G1 A1 B0 P6 A0	20.00	1800.
5	OPERATE TAACKWELDER AT WELDOUT PROCESS F 20		
	A1 B0 G1 M6 X3 IO A0	20.00	2200.
6	REPLACE SHEETMETAL2 FROM TABLE AT WELDOUT TO CART AT		
	WELDOUT WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOUE CART FROM WELDOUT TO WORKTABLE		
	Al B0 G1 A54 B3 P1 A0	1.00	600.

File Description ? TACK WELD SHEETMETAL BELLMOUTH
Output to line-Printer <Y or N> ?

67,010

6530.

#### File Description ? WELD BELLMOUTH

Output to line-printer <Y or N> ? N

•	39		3)
`	· ·	7	<b>.</b>

WELD .WO1 BMOUTH.M10

WELD BELLMOUTH WITH TIG-WELDER AT SHEETMETAL SHOP WELDING BOOTH PER BELLMOUTH OFG: 4 18-JUL-83

WELDING NASSCO SHEETMETAL SHAPE 14

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' TO 10 1/2 X 12 1/2'
- \* WELDOR PERFORMS THE WORK
- \* FITTER TRANSPORTS SHEETMETAL

	* WELD SHEETMETAL A-T WELD AREA BOOTH FITTER BEGINS AT WORKTABLE		
1	FITTER PLACE SHEETMETAL ASSEMBLY FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS		
2	A1 WORKTABLE WITH 4 STEPS  A1 B0 G1 A6 B0 P3 A0  FITTER MOVE CART FROM WORKTABLE TO WELDTABLE	1.00	110.
	A1 B0 G1 A131B3 P1 A0 PLACE SHEETMETAL ASSEMBLY FROM CART AT WELDTABLE TO	1.00	1370.
	WELDTABLE WITH 4 STEPS  Al B0 G1 A6 B0 P3 A0	1.00	110.
4	WELDOR PUSH POWER SUPPLY BUTTON FROM OFF AT WELDMACHINES TO ON AT WELDMACHINES WITH 16 STEPS	1.00	110.
5	A3 B0 G1 M1 X0 IO A32 WELDOR PUSH GAS-HOOKUP-SWITCH FROM OFF AT WELDMACHINES	1.00	370.
	TO ON AT WELDMACHINES A1 B0 G1 M1 X0 IO A1	1.00	40.
6	WELDOR FASTEN CURRENT SELECTOR HANDLE AT WELDMACHINES 1 WRIST-TURN USING HAND		
7	Al B0 G1 A1 B0 P1 F3 A0 B0 PO A0 WELDOR TURN OUTPUT CONTROL LEVER FROM OFF AT	1.00	70.
0	WELDMACHINES TO ON AT WELDMACHINES  A1 B0 G1 M3 X0 IO A1 WELDOR POSITION ANTI-SPATTER SPRAY CAN FROM WELDTABLE	1.00	60.
0	TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	4 00	5.60
9	WELDOR PUSH ANTI-SPATTER2 SPRAY CAN PROCESS F 4	4.00	560.
10	Al B0 G1 M1 X10 IO A0 WELDOR POSITION WELDROD FROM WELDTABLE TO SHEETMETAL ASSEMBLY AT WELDTABLE F 4	4.00	520.
11	A1 B0 G1 A1 B0 P6 A0 PULL WELDHOOD FROM UP AT WELDOR TO DOWN AT WELDOR F 4	4.00	360.
	A1 B0 G1 M1 X0 IO A1 WELDOR POSIT-ION WELDGUN FROM WELDTABLE TO SHEETMETAL	4.00	160.
	ASSEMBLY AT WELDTABLE WITH PARTIAL BEND F 5  Al B0 G1 A1 B6 P6 A0	5.00	750.
13	OPERATE WELD STINGER-BUTTON1 PROCESS F 5  Al B0 G1 M6 X81 IO A0	5.00	4450,
14	PUSH WELDHOOD FROM DOWN AT WELDOR TO UP AT WELDOR F 4		
15	A1 B0 G1 M1 X0 IO A1 WELDOR DEBURR WELDED ASSEMBLY AT WELDTABLE 1 ARM-STROKE USING WIREBRUSH AT WELDTABLE AND ASIDE PF 50 ( 4 5 6 7	4.00	160.
	Al B0 G1 (Al B0 Pl Cl )Al B0 Pl A0 (50)	1.00	1540.

### BNOUTH MIU

16 REPLACE SHEETMETAL ASSEMBLY FROM WELDTABLE TO CART AT WELDTABLE WITH 4 STEPS

A1 B0 G1 A6 B0 P3 A0 1.00 110.
17 FITTER MOUE CART FROM WELDTABLE TO WORKTABLE
A1 B0 G1 A131BO P1 A0 1.00 1340.

TOTAL TMU 12080.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help> ?

ì

:

. . . - . .

-----

File Prescription ? ASSEMBLE BELLMOUTH

# $O\ u\ t\ p\ u\ t\ o\ \mbox{line-printer}$ <Y or N> ? N

FIT	, 101) .W12  ASSEMBLE BELLMOUTH WITH DRILL-MOTOR AT SHEETMETAL SHOP BELLMOUTH  NASSCO SHEETMETAL SHAPE 14  * 20 GAUGE GALV. SHEETMETAL  * 6'X8' TO 10 1/2'X12 1/2' BELLMOUTH  * BOLT SCREEN FRAME TO BELLMOUTH  * GRIND WELDS SMOOTH FITTER BEGINS AT WORKTABLE	N-83	
1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS	1 00	110
2	A1 B0 G1 A6 B0 P3 A0 PLACE SHEETMETAL [BELLMOUTH] TO SHEETMETAL [SCREEN FRAME] AT WORKTABLE	1.00	110.
3	A1 B0 G1 A1 B0 P3 A0 FASTEN 5-32DRILLBIT [PILOT] TO DRILLMOTOR AT WORKTABLE	1.00	60.
4	3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 PLACE VISEGRIPS FROM WORKTABLE TO SHEETMETAL AT	1.00	140.
-	WORKTABLE F 4  A1 B0 G1 A1 B0 P3 A0	4.00	240.
	GRIP SHEETMETAL TO SHEETMETAL AT WORKTABLE USING VISEGRIPS AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO Gl (Al BO P3 Cl )Al BO Pl AO (4)	1.00	240.
6	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4  A1 B0 G1 A1 B0 P6 A0	4.00	360.
7	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4		
8	A1 B0 G1 M6 X6 IO A0 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	4.00	560.
9	A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	1.00	140.
10	Al B0 G1 Al B0 P3 F6 A1 B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	1.00	140.
	WORKTABLE F 4 A1 B0 G1 A1 B0 P6 A0	4.00	360.
11	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4  A1 B0 G1 M6 X6 IO A0	4.00	560.
12	POSITION $1$ / $4$ ' BOLT AND NUT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F $4$		
13	A1 B0 G1 A1 B0 P6 A0 FASTEN BOLT TO SHEETMETAL [NUT] AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 (4 5 6 7)	4.00	360.
14	A1 B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) MOVE GRINDER FROM TOOLROOM TO WORKTABLE	1.00	1160.
	A96 B0 G1 A96 B3 P1 A0 POSITION GRINDER FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	1970.

Al B0 G1 Al B0 P6 A0 4.00 360.

16 PUSH BUTTON ON GRINDER AT WORKTABLE PT 7 S F 4

Al B0 G1 H1 X16 IO A0 4.00 760.

17 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS

A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0 1.00 100.

TOTAL TMU 7620.

File Description ? ASSEMBLE BELLMOUTH
Output; to line-Printer <Y or N> ?

74,630

:

Ι

- . .

----

SHEET METAL RIVITED JOINT

8"x6"x35" LG. EIVED JOINT

TotAL +MUS. 17880 11 MIN.

File Description ? RIVET SHEETMETAL JOINT Output to line-printer <Y or N> ? N

FIT	9, 1) .W11 RVTJNT .M01 RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL RIVET JOINT OFG: 4 16-MA RIVETED JOINT ONLY * 20 GAUGE GALV. SHEETMETAL * 8'X6'X35' L RIVETED JOINT FITTER BEGINS AT WORKTABLE		
1	PLACE SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS		
	Al B0 G1 A3 B0 P3 A0 2 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURNOVER] AT WORKTABLE	1.00	80.
3	Al BO G1 Al BO P3 AO PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	60.
4	Al BO G1 Al BO P3 AO  MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 22 ( 4	4.00	240,
	5 6 7 )  Al B0 Gl (Al B0 Pl R3 )A1 B0 Pl A0 (22)	1.00	1140.
5	FASTEN 5-32DRILLBIT AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  Al BO Gl Al BO P3 F6 Al BO F1 AO	1.00	140.
6	Al B0 Gl Al B0 P3 F6 Al B0 F1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 22	1.00	140.
7	Al BO Gl Al BO P6 AO OPERATE DRILLMOTOR PROCESS F 22	22.00	1980. 3080.
8	Al B0 Gl M6 X6 IO A0 POSITION RIVET FROM WORKTABLE TO SHETMETAL AT WORKTABLE F 22	22,00	3080.
9	Al B0 Gl Al B0 P6 A0 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT	22.00	1980.
1.0	WORKTABLE F 22  Al B0 Gl Al B0 P6 A0  OPERATE RIVETGUN PROCESS F 22	22.00	1980.
	Al BO Gl M6 X3 IO AO POSITION CAULKINGGUN FROM WORKTABLE 'TO SHEETMETAL AT	22.00	2420.
	WORKTABLE F 26 Al B0 Gl Al B0 P6 A0	26.00	2340.
12	GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKINGGUN AT WORKTABLE AND ASIDE F 26  Al B0 Gl Al B0 P3 Cl Al B0 Pl A0	26.00	2340.
13	- INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0	1.00	1.00
	TOTAL TN	ſŪ	17880.

Type D,EM,CT,EW,EX,L,LD,LS,M,T,W <or H for help>. ?

f	<u>.</u>	MOSTS COMPUTER SYSTEMS				Acnt.	39,/3
	Title and Method Description Sheet					Date	5-16-83
							YOUNG
. •			RIVIT SHEETMETAL J	for the f		Page	/
	64 <sup>**</sup>		TITLE ( • REQUIRED)		CONDITIONS / * KE	YPOINTS	
+	• ACTI	IVITY: E/		N.A.S.S.C.O.	CIVITED JOIN	1/	
	• OBJ	ECT: 5/10	so-thetal	X 20 GAUGE GALL	1. 8x6x 35 1	F. RIVIT	ED JOINT
۱		V □0N □	]FOR				
		PRODUCT/EQUIPMENT:		DATA UNIT	TEMPORARY	, ,	DELETE
۱		OL: KIVIFGUN		TO BE FILED FILE NAME			YES NO
ı		TO MAT SIZE/CAPACITY:		WORK AREA LAYOUT	FIT. W.	0.11	
			BIN: SHOP	MOST ANALYSIS	Rut. Jart. M	1.0.2/	
	WCS	RK AREA NUM		COMBINED SUB-OP.	·		
	ואט ∙	. Pea. PIVI	TOLN/ 2>150 - 1-5/- CFG: 4	TITLE SHEET			
	• OPE	RATOR:	• Begins:	DATE FILED	LOC. NO.	DATA (	ROTANIDROCC
	NO.	KEYWORD /	METHOD DESCRIPTION			< SIMC	)>. (PF) - F
Ì	7.	PLAC	E SHEEFMETAL FROM WOX	extable to SHE	-ETNETAL		
		At was	ertable	,			
Ī	. S	PLACE	SHEEFMELAL FROM WO	RETABLE TO W	ORRIAISLE		
Ţ	-	(furu	OVER) : At WORK + ABLE F-6				
$\langle$		PLACE	- RIVIT HOLE GUIDE FROM	NORKFABLE 7	O SHEETMELL		
ĺ			extable F-4				
	4	MARK	SHEETMETAL FROM EIV	IT-HOLE-GUIDE- A	F WORKHBLE		· · · · · · · · · · · · · · · · · · ·
		101611	USING BLACKPEN AT WOKK	MOLE AND ASIDE	F P.F 72		
	حح	FASIEN	U 5/32 DRILL-BIT FROM WOR	extable to DE	LLINGER		
			FABLE 3 WEIST - TURNS USING			NOASIA	DE
23	6	Posifi	ION PRILLMOTER FROM WOR	KAPLE TO SHE	ETMETAL		
5		.At wo	RKTABLE F-22	,			<u> </u>
-	7		FE DRILLMOTER AT WORKING		,		
2	B		ION RIVIT FROM WORKFABL	E TO SHELTMEN	AL AT		
3			LIBLE F-22		11		
7	9	POSITION RIVITGUN FROM WORKTABLE TO SHEETMETAL				<del> </del>	
V Sail		)	ORKFABLE F-22		·		
Keu	10		at RIVITGUN AT WORKTAR				
_	_//		ON CAULKING GON FROM W	ORRIAGLE TO SHE	EETMETAL.	1	
1581		At WOX	PK FABLE F-26		ا د د د د س	1	
V 7.	<sup>*</sup> [2]		SEALANT to RIVIT AT WOR		CAULKING GON		
1.	μ_		RK TABLE AND ASIDE F-			<u> </u>	
присо	1/3	13 INSPECT SHEETMETEL AT WORKTABLE 7 POINTS					
		-					
						1	<del></del>
~		_STEPS	DE ZOO CHARACTERS HAY				• • -

# SHEET METAL RIVITED JOINT

19" × 14" × 41" LG. FIVITED JOINT

To fol thu. 41440 24. MIN.

#### File Description ? RIVET SHEETMETAL JOINT

Output to line-Printer <Y or N> ? N

FIT	9, 1) .Wll RVTJNT,MO2 RIVET SHEETMETAL FOR JOINT WITH RIVET GUN AT SHEETMETAL RIVET JOINT OFG: 4 16-MA RIVETED JOINT ONLY * 18 GAUGE GALV. SHEETMETAL * 1119'X14'X41 <sup>°</sup> L RIVETED JOINT FITTER BEGINS AT WORKTABLE		104
1	POSITION SHEETMETAL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
2	Al B0 Gl Al B0 P6 A0 PLACE SHEETMETAL FROM WORKTABLE TO WORKTABLE [TURN OVER] AT WORKTABLE F 6	1.00	90.
3	Al B0 Gl Al B0 P3 A0 PLACE RIVET-HOLE-GUIDE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	6.00	360.
4	Al BO Gl Al BO P3 AO MARK SHEETMETAL FROM RIVET-HOLE-GUIDE AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 53 ( 4 5 6 7 )	4.00	240.
5	Al B0 Gl (Al B0 Pl R3 )Al B0 Pl A0 (53) FASTEN 5-32DRILLBIT FROM WORTKABLE TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	1.00	2690.
6	AND ASIDE  Al B0 Gl Al B0 P3 F6 Al B0 Pl A0  POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT  WORKTABLE F 53	1.00	140.
7	Al BO Gl Al BO P6 AO OPERATE DRILLMOTOR PROCESS F 53	53.00	4770.
	Al BO Gl H6 X6 IO AO POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53	53.00	7420.
9	Al BO Gl Al BO P6 AO POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 53	53.00	4770.
10	Al BO Gl Al BO P6 AO OPERATE RIVETGUN PROCESS F 53	53.00	4770.
	Al BO Gl M6 X3 IO AO POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 57	53.00	5830.
12	Al BO Gl Al BO P6 AO GRIP SEALANT TO RIVET AT WORKTABLE USING CAULKINGGUN AT	57.00	5130.
	WORKTABLE AND ASIDE F 57  Al BO Gl Al BO P3 Cl Al BO P1 A0	57.00	5130.
13	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 R0 P0 T10 A0 B0 P0 A0	1.00	100
	TOTAL T	ИU	41440.

### SHEET METAL ACCESS COVER

### 6" X 12" X 10" X 4" ACCESS PLAKE

FAB	50520	
MARK out	12,756	
TOTAL TMU.	63, 270	
	,	

## File Description ? MARK OUT ACCESS COVER AND BACK-UP PLATES Output to line-Printer <Y or N> ? N

FIT	MARK OUT .ACCESS COVER AND BACK-UP PLATES WITH AWL AT SHEET	TMETAL
- SHOI PER	COVER AND PLATE OFG: 4 26-MAY- NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATE  * 11 GAUGE GALV. SHEETMETAL  * ACCESS COVER 6'X12'X10'X4'  * MARK OUT ACCESS COVER WITH TEMPLATE  * MARK OUT BACK-UP STRIPS WITHOUT TEMPLATE  FITTER BEGINS AT WORKTABLE	-83
1	MOUE 11 GAUGE SHEETMETAL SCRAP FROM SCRAPBIN TO WORKTABLE	
2	A152B3 Gl A152B3 Pl A0 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 5 STEPS	1.00 3120.
3	Al B0 Gl A10 B0 P6 A0 POSITION WEIGHT FROM WORKTABLE TO SHEETMETAL AT	1.00 180.
4	WORKTABLE WITH 3 STEPS F 2  Al B0 Gl A6 B0 P6 A0 2  MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7	2.00 280.
5	Al B0 Gl (Al B0 Pl R16 )A1 B0 Pl A0 (4) DOSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 13	
6	Al BO Gl A3 BO P6 AO 13 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 13 ( 4 5 6 7 )	3.00 1430.
7	Al B0 Gl (Al B0 P0 P3 )A1 B0 Pl A0 (13) REPLACE WEIGHT FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	1.00 560.
8	Al B0 Gl A6 B0 P3 A0 2 REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE ATIH 5 STEPS	2.00 220.
9	Al B0 Gl Al0 B0 P3 A0 MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING	1.00 150.
10	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00 2080.
11	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO Gl (Al BO Pl R3 )Al BO Pl AO (6) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 1 DIGIT USING	1.00 340.
	REDPEN AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 )	1.00 540.
13 M <i>z</i>	ASIDE PF 13 ( 4 5 6 7 )	1.00 690.

		A.	1 B0	G1	(A1	B0	P1	R3	)A1	В0	P1	A0 (2	6)	1.00	1340.
14					NOS	ORKT	ABLE	TO	CART	ΑT	WORK	TABLE			
	WITH	1 4 ST	reps i	F 2			- 0	~ 1		_ ^		- 0			
1 -		<b>615</b>	== 01.				_	_	Дб	В0	Р3	A0		2.00	220.
15	MOUE	CART.	FROM	WORK	LABLE	-				ъ0	ъ1	7. ()		1 00	0.40
						AI	BU	ĠΙ	A81	BO	ΡI	ΑU		1.00	840.
												TOTAI	, тмт	J	12750.
														-	

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

12750

#### File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

( 39, 1)

FIT • W11 ACOVER.M02

SHEAR SHEETMETAL FOR ACCESS COVER WITH  $14 \mathrm{FT}$ . SHEAR AT SHEETMETAL SHOP

PER COVER OFG: 4 26-MAY-83

NASSCO SHEETMETAL ACCESS COVER

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12'X10'X4'
- \* SHEAR BACK-UP PLATES AND ACCESS COVER

FITTER BEGINS AT 14FT. SHEAR

1	1 POSITION SHEETMETAL FROM CART AT 1 14FT.SHEAR WITH 4 STEPS F 2	4FT. SHEAR	TO			
	Al BO G	1 A6 B0	Рб	A0	2.00	280.
2	2 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS	F 2				
	Al BO G	1 Ml X3	ΙO	A0	2.00	120.
3	3 POSITION SHEETMETAL FROM 14FT.SHEA 2 STEPS F 9	AR TO 14FT	.SHE	AR WITH		
	Al BO G	1 A3 B0	Р6	A0	9.00	990.
4	4 PUSH 14FT.SHEAR-FOOTPEDAL PROCESS	F 9				
	Al BO G	1 Ml X3	ΙO	A0	9.00	540.
5	5 REPLACE SHEETMETAL FROM 14FT.SHEAF	R TO CART	ΑT			
	14FT.SHEAR WITH 10 STEPS F 2					
	Al BO G	1 Al6 B0	Р3	A0	2.00	4 2 0 .
6	6 MOUE CART FROM 14FT.SHEAR TO WORKT	ABLE				
	A1 B0 G:	1 A81 B3	P1	A0	1.00	870.

TOTAL TMU 3220.

### File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 ACOVER.MO3

SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12'X10'X4'
- \* PUNCH OUT HOLE FOR UNI-SHEAR ACCESS

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL2 FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE	2.00	220.
_	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
3	PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE AND ASIDE F 4	1.00	1010.
	Al BO G1 Al BO P3 AO	4.00	240.
4	FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (4)	1.00	200 .
5	POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
6	OPERATE UNISHEAR AT WORKTABLE PROCESS F 4		
	Al BO G1 M6 X173IO AO	4.00	7240.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
8	MOUE CART FROM WORKTABLE TO SPOTWELDER		
	Al B0 G1 A54 B0 P1 A0	1.00	570.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

14020

10800.

TOTAL TMU

#### File Description ? SPOTWELD SHEETMETAL FOR ACCESS COVER

utput to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 ACOVER.MO4

WELD (SPOT) SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER AT SHEETMETAL SHOP
PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12'X10'X4'
- \* SPOT WELD BACK-UP STRIPS TO --
- \* -- SHEETMETAL ACCESS HOLE

FITTER BEGINS AT SPOTWELDER

1	MOUE VISEGRIPS FROM WORKTA	ABLE TO	SPO G1	TWELD	ER B0	Р1	A0		1.00	1130.
2	POSITION SHEETMETAL FROM SPOTWELDER WITH 4 STEPS F	CART A	T SP	OTWEL	DER	TO				
3	GRIP SHEETMETAL [BACK-UP	Al BO	G1 1 AT		BO WET.	P6	A0 T0		2.00	280.
J	SHEETMETAL AT SPOTWELDER	USING	VIS	EGRIP			10			
	SPOTWELDER AND ASIDE PF 7 Al B0 G1 (A1 E	' ( 4 5 30 P3	• .	) )A1	в0	P1	A0	(7)	1.00	390.
4	POSITION SHEETMETAL FROM 2 STEPS F 19	SPOTWE	LDER	TO S	POTV	VELD:	ER W	HTI		
	Į.	Al BO	G1	A3	В0	Pб	A0		19.00	2090.
5	OPERATE SPOTWELDER-FOOTPED.	AL PRO	CESS	F 19						
	P	Al BO	G1	Мб	Хб	ΙO	A0		19.00	2660.
6	REPLACE SHEETMETAL2 FROM S SFOTWELDER WITH 4 STEPS	SPOTWEL	DER '	TO CA	RT A	TA				
	P	Al BO	G1	Аб	В0	P3	A0		1.00	110.
7	MOUE CART FROM SPOTWELDER	TO WOI	RKTAB	LE						
	Į.	Al B0	G1	A54	В3	Р1	A0		1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

21,280

7260.

TOTAL TMU

### File Description ? DRILL AND TAP SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

( J), II	(	39,	1)
----------	---	-----	----

FIT .W11 ACOVER.M05

TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12'X10'X4'
- \* DRILL OUT ACCESS COVER WITH OVER SIZE--
- \* --BIT 5/16 AFTER TAPING BACK-UP PLATES

	FITTER BEGINS AT WORKTABLE		
1	POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P6 A0 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS	2.00	280.
3	Al B0 G1 A3 B0 P6 A0 FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	100	110.
4	Al BO G1 Al BO P3 F6 Al BO P1 AO POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 3 STEPS F 4	1.00	140.
5	Al BO G1 A6 BO P6 AO OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4	4.00	560.
	Al B0 G1 M6 X6 I0 A0 MOUE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE	4.00	560.
	A96 B0 G1 A96 B3 P1 A0	1.00	1970.
1	FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AND ASIDE		
8	Al B0 G1 Al B0 P3 F6 Al B0 P1 A0 POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	1.00	140.
9	Al B0 G1 Al B0 P6 A0 OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F 4	4.00	360.
10	Al B0 G1 M6 X6 I0 A0 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	4.00	560.
11	Al B0 G1 Al B0 P6 A0 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS	4.00	360.
11	USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1 00	1160
12	Al B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4) POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 9	1.00	1160.
13	A1 B0 G1 A1 B0 P6 A0 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 9	9.00	810 .
14	Al B0 G1 M6 X6 I0 A0 LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	9.00	1260.
15	Al B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) REPLACE SHEETMETAL [ACCESS COVER] FROM SHEETMETAL AT WORKTABLE TO SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2	1.00	1160.

	Al BO G1 A3 BO P3 A0	1.00	80.
16	OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F		
	9		
	Al BO G1 M6 X6 IO AO	9.00	1260.
	17 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al BO G1 Al BO P3 L6 Al BO P1 AO	1.00	140.
18	FASTEN 5.16DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		

WORKTABLE WITH 2 STEPS F 13

Al B0 G1 A3 B0 P6 A0 13.00 1430.

20 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 13

19 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT

Al B0 G1 Al B0 P3 F6 Al B0 P1 A0

Al B0 G1 M6 X6 IO A0 13.00 1820.

TOTAL TMU 14300.

Tupe D.EM.CT.EW.EX.L.LD.LS.M.T.W <or H for help> ?\*

STEPS

35,580

1.00 140.

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 ACOVER.MO6

CUT GASKET FOR ACCESS COVER WITH UTILITY KNIFE AT SHEETMETAL SHOP PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AMD BACK-UP PLATES

- \* 1 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12\*X10'X4'
- \* PUNCH OUT BOLT HOLES

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETAL [ACCESS COWER] , BLACKPEN [INK PEN] , FROM WORKTABLE TO GASKET-CUTTING-TABLE		
2	Al B0 G1 A152B0 P1 A0 MOUE UTILITY-KNIFE , 3 / 8HOLE PUNCH , MALLET , FROM	1.00	1550.
	TOOLROOM TO GASKET-CUTTING-TABLE- A96 B0 G1 A96 B0 P1 A0	1.00	1940.
3	PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO GASKET-CUTTING-TABLE WITH 3 STEPS	_,,,	1310.
4	Al B0 G1 A6 B0 P3 A0 PLACE SHEETMETAL2 [ACCESS COVER] FROM	1.00	110.
_	GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE WITH 3 STEPS		
	Al B0 G1 A6 B0 P3 A0 5 CUT RUBBER FROM SHEETMETAL [ACCESS COVER] AT	1.00	110.
	GASKET-CUTTING-TABLE 1 CUT USING UTILITY-KNIFE AT GASKET-CUTTING-TABLE AND ASIDE PF 4 ( 4 5 6 7 )		
6	Al BO G1 (A1 BO P3 Cl )A1 BO P1 AO (4) REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE	1.00	240.
	TO GASKET-CUTTING-TABLE WITH 2 STEPS  Al B0 G1 A3 B0 P3 A0	1.00	80.
7	POSITION 3 / 8HOLE PUNCH FROM GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE F 13	_,,,	00.
8	Al B0 G1 Al B0 P6 A0 FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2	13.00	1170.
	STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE P F 1 3 ( 4 5 6 7 )		
9	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (13) MOVE SHEETMETAL [ACCESS PLATE], RUBBER, FROM	1.00	950.
	GASKET-CUTTING-TABLE TO WORKTABLE  Al B0 G1 A152B3 P1 A0	1.00	1580.
10	MOVE UTILITY-KNIFE , MALLET , HOLE PUNCH , FROM GASKET-CUTTING-TABLE TO TOOLROOM	_,,,	
	A152B0 G1 A96 B0 P1 A0	1.00	2500 .

10230.

TOTAL TMU

File Description ? BEBURR ACCESS HOLE AND ACCESS COVER output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 ACOVER.M07

DEBURR ACCESS HOLE AND ACCESS COVER WITH FILE AT SHEETMETAL SHOP PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 6'X12'X10'X4'
- \* GLUE GASKET TO ACCESS COVER

FITTER BEGINS AT WORKTABLE

1 MOVE GLUE AND BRUSH FROM TOOLROOM TO WORKTABLE A96 B0 G1 A96 B3 P1 A0	1.00	1970.
2 DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1 ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )		
Al B0 G1 (A1 B0 P1 Cl )A1 B0 P1 A0 (15)  3 DEBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1 ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 15 ( 4 5 6 7 )	1.00	490.
Al B0 G1 (A1 B0 P1 Cl )A1 B0 P1 A0 (15) 4 GRIP GLUE TO RUBBER2 AT WORKTABLE 1 SQUARE FEET USING BRUSH AND ASIDE	1.00	490.
Al B0 G1 Al B0 P3 C1 Al B0 P1 A0 5 PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 4 STEPS	1.00	90.
Al B0 G1 A6 B0 P3 A0 6 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE	1.00	110.
10 WRIST-TURNS USING WRENCH AND ASIDE PF 4 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P6 A0 )  7 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS	1.00	300.
7 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) Al BO G1 (A1 BO P3 F24 )A1 BO P1 AO (4)	1.00	1160.
8 INSPECT SHEETMETAL AT WORKTABLE 9 POINTS A0 B0 GO A0 B0 PO T10 A0 B0 P0 A0	1.00	100.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

50520

TOTAL TMU 4710.

### SHEEF METAL ACCESS LOVER EACCESS PL

### 20"x 30" x 25" X 15" ACCESS COVER & BACKUPPL

FAB.	89.120	53 MIN.
MARK OUT	17,530	11 MIN
TOTAL TMU	106,650	64 MIN.

File Description ? MARK OUT ACCESS COVER AND BACK UP PLATES
Output to line-printer <Y or N> ? N

FIT	9, 1) .W11 ACOVER.M20 MARK OUT ACCESS COVER AND BACK UP PLATES WITH AWL AT SHI	EETMETAL	1
SHOI PER	ACCESS COVER OFG: 4 27-M NASSCO SHEETMETAL ACCESS COVER AND BACK UP PLATES * 11 GAUGE GALV. SHEETMETAL * ACCESS COVER 20'X30'X25'X15' * MARK OUT USING TEMPLATE FITTER BEGINS AT WORKTABLE	AY-83	
	MOUE 11GAUGE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE A152B3 G1 A152B3 P1 A0 POSITION TEMPLATE FROM WORKTABLE TO SHEETMETAL AT	1.00	3120,
3	WORKTABLE WITH 5 STEPS  Al B0 G1 A10 B0 P6 A0 POSITION WEIGHTS FROM WORKTABLE TO SHEETMETAL AND	1.00	180:
4	TEMPLATE AT WORKTABLE WITH 3 STEPS F 2  Al B0 G1 A6 B0 P6 A0  MARK OUTLINE FROM TEMPLATE TO SHEETMETAL AT WORKTABLE 5  DIGITS USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7	2.00	280.
5	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (4) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 2 STEPS F 37	1.00	760.
6	Al B0 G1 A3 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 34 ( 4 5 6 7 )	37.00	4070.
7	Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (34) REPLACE WEIGHTS FROM TEMPLATE AT WORKTABLE TO WORKTABLE WITH 3 STEPS F 2	1.00	1400,
8	Al BO G1 A6 BO P3 AO REPLACE TEMPLATE FROM SHEETMETAL AT WORKTABLE TO WORKTABLE WITH 5 STEPS	2.00	220,
9	Al BO G1 A10 BO P3 AO MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	1.00	150.
10	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (6) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	1.00	2080.
11	USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (6) MARK CUT LINES ONSHEETMETAL AT WORKTABLE 5 DIGITS USING	1.00	340.
12	REDPEN N AT WORKTABLE AND ASIDE PF 10 ( 4 5 6 7 ) Al B0) G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (10) MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT	1.00	1840.
	WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 13 ( 4 5 6 7 )  Al BO G1 (A1 BO P1 R3 )A1 BO P1 A0 (13)  13 MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 25 ( 4 5 6 7	1.00	690.
14	Al BO G1 (A1 BO P1 R3 )A1 BO P1 AO (26) PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	1340.

WITH 4 STEPS F 2

					Al	В0	G1	Аб	в0	Р3	A0	2.00	220 •
15	MOUE	CART	FROM	WORKTABLE	TO	14FT	.SHE	CAR					
					Al	В0	G1	A81	в0	Р1	A0	1.00	840.

TOTAL TMU 17530.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

17,530

#### File Description ? SHEAR SHEETMETAL FOR ACCESS COVER

Output to line-printer <y or N> ? N

(39, 1)

FIT .W11 ACOVER.M21

SHEAR SHEETMETAL FOR ACCESS COVER WITH 14FT. SHEAR AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 20'X30'X25'X15'
- \* SHEAR ACCESS COVER AND BACK-UP PLATES

FITTER BEGINS AT 14FT.SHEAR

1	POSITION SHEETMETAL FROM CART AT 14FT.SHEAR TO 14FT.SHEAR WITH 4 STEPS F 2		
	Al BO G1 A6 BO P6 A0	2.00	280.
2	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 2		
	Al BO G1 Ml X3 IO AO	2.00	120.
3	POSITION SHEETMETAL FROM 14FT.SHEAR TO 14FT.SHEAR WITH 2 STEPS F 9		
	Al BO G1 A3 BO P6 A0	9.00	990.
4	PUSH 14FT.SHEAR-FOOTPEDAL PROCESS F 9		
	Al BO G1 Ml X3 IO AO	9.00	540.
5	REPLACE SHEETMETAL FROM 14FT.SHEAR TO CART AT		
	14FT.SHEAR WITH 10 STEPS F 2		
	Al BO G1 Al6 BO P3 AO	2.00	420.
6	MOVE CART FROM 14FT.SHEAR TO WORKTABLE		
	Al B0 G1 A81 B3 P1 A0	1.00	870.

TOTAL TMU 3220.

#### File Description ? SHEAR ACCESS HOLE FOR ACCESS COVER

Output to line-Printer <Y or N> ? N

(39, 1)

FIT • W11 ACOVER.M22

SHEAR ACCESS HOLE FOR ACCESS COVER WITH UNI-SHEAR AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 30'X20'X25'X15'
- \* PUNCH HOLE IN; SHEETMETAL WITH CHISEL --
- t --FOR ACCESS WITH UNI-SHEAR

FITTER BEGINS AT WORKTABLE

1	PLACE SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
	Al B0 G1 A6 B0 P3 A0	2.00	220.
2	MOVE UNISHEAR2 FROM TOOLROOM TO WORKTABLE		
	A96B0 G1 A96B3 P1 A0	1.00	1970.
3	PLACE CHISEL FROM WORKTABLE TO SHEETMETAL AT WORKTABLE		
	AND ASIDE WITH 2 STEPS F 4		
	Al B0 G1 A3 B0 P3 A0	4.00	320.
4	FASTEN CHISEL TO SHEETMETAL AT WORKTABLE 1 STRIKE USING		
	HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4)	1.00	200.
ij	POSITION UNISHEAR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE WITH 2 STEPS	1 00	110
6	Al B0 G1 A3 B0 P6 A0 OPERATE UNISHEAR AT WORKTABLE PROCESS F 7	1.00	110.
O	OPERATE UNISHEAR AT WORKTABLE PROCESS F 7  Al B0 G1 M6 X173I0 A0	7.00	12670.
7	REPLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	7.00	120/0.
,	WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
8	MOVE CART FROM WORKTABLE TO SPOTWELDER	2.00	220.
Ŭ	Al BO G1 A54 BO P1 AO	1.00	570.
	112 20 02 110 20 11 110		3,0.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

19,500

TOTAL TMU 16280.

File Description ? SPOTWELD SHEETMETAL FOR ACCESS COVER

Output to line-Printer <Y or N> ? N

( 39, 1) FIT • W11

FIT ● W11 ACOVER.M23

WELD SHEETMETAL FOR ACCESS COVER WITH SPOT WELDER A-f SHEETMETAL

SHOP

PER ACCESSS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

\* 11 GAUGE GALV. SHEETMETAL

\* ACCESS COVER 20'X30'X25'15'

\* SPOT WELD BACK-UP PLATES TO ACCESS HOLE

FITTER BEGINS AT WORKTABLE

1	MOVE VISEGRIPS FROM WORKTABLE TO SPOTWELDER		
	Al B0 G1 A54 B0 P1 A0	1.00	570.
2	POSITION SHEETMETAL FROM CART AT WORKTABLE TO		
	WORKTABLE WITH 4 STEPS F 4		
	A54 B3 G1 A6 B0 P6 A0	4.00	2800.
3	GRIP SHEETMETAL [BACK-UP PLATES] TO SHEETMETAL		
_	[ACCESS HOLE] AT SPOTWELDER USING VISEGRIPS AND ASIDE		
	PF7 (4567)		
	A54 B0 G1 (A1 B0 P3 C1 )A1 B0 P1 A0 (7)	1.00	920.
4	POSITION SHEETMETAL FROM SPOTWELDER TO SPOTWELDER WITH		
-	1 STEP F 64		
	Al BO G1 A3 BO P6 A0	64.00	7040.
	5 OPERATE SPOTWELDER-FOOTPEDAL PROCESS F 64	01.00	7010.
		C 1 00	0 0 6 0
	Al BO G1 M6 X6 IO AO	64.00	8960.
6	REPLACE SHEETMETAL2 FROM SPOTWELDER TO CART AT		
	SPOTWELDER WITH 4 STEPS F 2		
	Al BO G1 A6 BO P3 A0	2.00	220.
7	MOVE CART FROM SPOTWELDER TO WORKTABLE		
	Al BO G1 A54 B3 P1 AO	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

40610

TOTAL TMU 21110.

#### File Description ? DRILL AND TAP SHEETMETAL FOR ACCESS COVER

Output to line-printer <Y or N> ? N

(	39	,	1)

FIT .W11 ACOVER.M24

TAP AND DRILL SHEETMETAL FOR ACCESS COVER WITH TAP AT SHEETMETAL SHOP

PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 20°'30'X25'X15'
- \* DRILL OUT ACCESS COVER WITH OVERSIZE--
- \* --DRILL BIT (5/16) AFTER TAPING--
- \* --BACK-UP PLATES

	FITTER BEGINS AT WORKTABLE		
1	POSITION SHEETMETAL FROM CART AT WORKTABLE TO WORKTABLE WITH 4 STEPS F 2		
2	Al B0 G1 A6 B0 P6 A0 POSITION SHEETMETAL [ACCESS COVER] TO SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 4 STEPS	2.00	280.
3	A1 B0 G1 A6 B0 P6 A0 FASTEN 7.32DRILL-BIT 70 DRILLMOTOR AT WORKTABLE 3	1.00	140.
4	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE Al B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	1.00	140.
	WORKTABLE WITH 4 STEPS F 4 A1 B0 G1 A6 B0 P6 A0	4.00	560.
	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 4  Al B0 G1 M6 X6 Id A0	4.00	560.
	MOVE TAPINGMOTOR FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0  FASTEN 1.4TAP TO TAPINGMOTOR AT WORKTABLE 3 WRIST-TURNS	1.00	1970.
	USING CHUCKKEY AT WORKTABLE AND ASIDE Al B0 G1 Al B0 P3 F6 A1 B0 P1 A0	1.00	140.
8	POSITION TAPINGMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE WITH 1 STEP F 4  Al B0 G1 A3 B0 P6 A0	4.00	440.
9	OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCESS F	1.00	110.
10	Al B0 G1 M6 X6 I0 A0 POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 4	4.00	560.
11	Al B0 G1 Al B0 P6 A0 FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS	4.00	360.
12	USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4)  POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT	1.00	1160.
	WORKTABLE WITH 2 STEPS F 29  Al B0 G1 A3 B0 P6 A0	29.00	3190.
	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 29  Al B0 G1 M6 X6 I0 A0	29.00	4030.
14	LOOSEN BOLT FROM SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
15	Al B0 G1 (A1 B0 P3 L24 )A1 B0 P1 A0 (4) REPLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO	1.00	1160.

	SHEETMETAL [ASSEMBLY] AT WORKTABLE WITH 2 STEPS		
	Al BO G1 A3 BO P3 A0	1.00	80.
16	OPERATE DRILLMOTOR [TAPINGMOTOR] AT WORKTABLE PROCES: 29	S F	
	Al BO G1 M6 X6 IO AO	29.00	4060.
	17 LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al BO G1 Al BO P3 L6 Al BO P1 AO	1.00	140.
18	FASTEN 5.16DRILL-BIT FROM WORKTABLE TO DRILLMOTOR 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al BO G1 Al BO P3 F6 Al BO P1 AO	1.00	140.
19	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 29		
	Al BO G1 Al BO P6 AO	29.00	2610.
20	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 29		
	Al BO G1 M6 X6 IO AO	29.00	4060.
	TOT	AL TMU	23810.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

66420

#### File Description ? CUT GASKET FOR ACCESS COVER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 ACOVER.M25

CUT GASKET FOR ACCESS COVER WITH UTILITY-KNIFE AT SHEETMETAL SHOP PER ACCESS COVER OFG: 4 27-MAY-83

NASSCO SHEETMETAL ACCESS COVER AND BACK-UP PLATES

- \* 11 GAUGE GALV. SHEETMETAL
- \* ACCESS COVER 20'X30'X25'X15'
- \* PUNCH OUT BOLT HOLES

FITTER BEGINS AT WORKTABLE

1	MOVE BLACKPEN [INK PEN] , SHEETMETAL [ACCESS COVER3 FROM WORKTABLE TO GASKET-CUTTING-TABLE		
	Al B0 G1 A152B0 P1 A0	1.00	1550.
2	MOVE UTILITY-KNIFE , 3 / 8HOLE PUNCH , MALLET FROM TOOLROOM TO GASKET-CUTTING-TABLE		
	A96 B0 G1 A96 B0 P1 A0	1.00	1940.
3	PLACE RUBBER FROM SHELF AT GASKET-CUTTING-TABLE TO		
	GASKET-CUTTING-TABLE WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1 00	110.
4		1.00	110.
4	PLACE SHEETMETAL [ACCESS COVER] FROM		
	GASKET-CUTTING-TABLE TO RUBBER AT GASKET-CUTTING-TABLE		
	WITH 3 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
	5 CUT RUBBER AT GASKET-CUTTTNG-TABLE 1 CUT USING		
	UTILITY-KNIFE AND ASIDE PF 4 ( 4 5 6 7 )		
	,	1 00	0.40
_	Al B0 G1 (A1 B0 P3 Cl )A1 B0 P1 A0 (4)	1.00	240.
6	REPLACE SHEETMETAL FROM RUBBER AT GASKET-CUTTING-TABLE		
	TO GASKET-CUTTING-TABLE WITH 2 STEPS		
	Al B0 G1 A3 B0 P3 A0	1.00	80.
7	POSITION 3 / 8HOLE-PUNCH FROM GASKET-CUTTING-TABLE TO		
	RUBBER AT GASKET-CUTTING-TABLE F 33		
		33.00	2970.
Ω	FASTEN HOLE PUNCH TO RUBBER AT GASKET-CUTTING-TABLE 2	33.00	2710.
O			
	STRIKES USING MALLET AT GASKET-CUTTING-TABLE AND ASIDE		
	PF33 (4567 )		
	Al B0 G1 (A1 B0 P0 F6 )A1 B0 P1 A0 (33)	1.00	2350.
9	MOVE SHEETMETAL [ACCESS PLATE] AND RUBBER FROM		
	GASKET-CUTTING-TABLE TO WORKTABLE		
	Al B0 G1 Al52B3 P1 A0	1.00	1580.
1 0	MOVE HOLE-PUNCH , UTILITY-KNIFE AND MALLET FROM	1.00	1300.
Τ0	·		
	GASKET-CUTTING-TABLE TO TOOLROOM	1 00	0500
	Al52B0 Gl A96 B0 Pl A0	1.00	2500,

13430,

TOTAL TMU

#### File Description ? DEBURR ACCESS HOLE AND COVER

Output to line-printer <Y or N> ? N

( 3	9, 1)										
FIT	● W11				ACC	VER.M2	26				
	DEBURR	ACCESS	HOLE	AND	COVER	$\mathtt{WITH}$	${ t FILE}$	AT S	HEETMET	AL	SHOP
PER	ACCESS	COVER							OFG: 4	2	7-MAY-
	NASSO	CO SHEET	METAL	ACC	ESS CO	VER A	ND BA	CK-UP	PLATES	,	

- \* 11 GAUGE GALV. SHEETMETAL \* ACCESS COVER 20'X30'X25'X15'
- \* GLUE GASKET TO ACCESS PLATE

FITTER BEGINS AT WORKTABLE

1	MOVE GLUE , BRUSH FROM TOOLROOM TO WORKTABLE  A96 B0 G1 A96 B3 P1 A0	1.00	1970.
2	DEBURR SHEETMETAL [ACCESS COVER] AT WORKTABLE 1 ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )		
3	Al B0 G1 (A1 B0 P1 C1 )A1 B0 P1 A0 (40) DEBURR SHEETMETAL [ACCESS HOLE] AT WORKTABLE 1 ARM-STROKE USING FILE AT WORKTABLE AND ASIDE PF 40 ( 4 5 6 7 )	1.00	1240.
1	Al BO G1 (A1 BO P1 C1 )A1 BO P1 AO (40)	1.00	1240.
4	MOVE RUBBER FROM GASKET-CUTTING-TABLE TO WORKTABLE A152B0 G1 A152B3 P1 A0	1.00	3090 .
5	GRIP GLUE TO RUBBER AT WORKTABLE 2 SQUARE FEET USING BRUSH AND ASIDE		
_	Al BO G1 A1 BO P3 C1 Al BO P1 A0	1.00	90.
6	PLACE SHEETMETAL [ACCESS COVER] FROM WORKTABLE TO SHEETMETAL [ACCESS HOLE] AT WORKTABLE WITH 2 STEPS		
	Al BO G1 A3 BO P3 A0	1.00	80.
7	POSITION BOLT FROM WORKTABLE TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P6 A0 )	1.00	300 .
8	FASTEN BOLT TO SHEETMETAL AT WORKTABLE 10 WRIST-TURNS USING WRENCH AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
•	Al B0 G1 (A1 B0 P3 F24 )A1 B0 P1 A0 (4)	1.00	1160.
9	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 GO A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.
			_00.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

TOTAL TMU

9270.

27-MAY-83

## SHEEF METAL BLANK END

. 8" x 6" BLANK END PIECE

FAB	10,220	6 MIN.
MARK OUT	4876	3 MIN
TOTAL TMU.	15,090	9 MIN

#### File Description ? HARK OUT BLANK END

Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11

BLKEND.MO1

MARK OUT BLANK END WITH AWL AT SHEETMETAL SHOP

PER BLANK END OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6' BLANK END PIECE
- \* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al BO G1 (A1 BO P1 M32 )A1 BO P1 AO (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12)	1.00	640.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 6	6.00	E 4 O
4	Al B0 G1 Al B0 P6 A0 MARK LINES ON SHEETMEAL AT WORKTABLE 5 DIGITS USING	0.00	540.
_	AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (6)	1.00	1120.
5	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS		
	USING REDPEN AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (4)	1.00	360.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE		
	WITH 4 STEPS		
_	Al BO G1 A6 BO P3 A0	1.00	110,
./	MOVE CART FROM WORKTABLE TO SMALLSHEAR	1 00	700
	Al B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

4870.

#### File Description ? SHEAR SHEETMETAL FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1) FIT \*W11 BLKEND.M02

SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

OFG: 4 06-JUL-83 PER BLANK END

NASSCO SHEETMETAL BLANK END

\* 20 GAUGE GALV. SHEETMETAL

\* 8'X6' BLANK END PIECE

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR TO SMALLSHEAR WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO G1 Ml X6 IO AO	1.00	90.
3	POSITION SHEETMETAL FROM SMALLSHEAR TO SHALLSHEAR		
	Al B0 G1 A1 B0 P6 A0	1.00	90.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROCESS		
	Al BO G1 M1 X6 IO AO	1.00	90.
5	REPLACE SHEETMETAL FROM SMALLSHEAR TO CART AT SMALLSHEAR WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
6	MOVE CART FROM SMALLSHEAR TO LEAFBRAKE [NOTCH PUNCH]		
	A1 B0 G1 A42 B0 P1 A0	1.00	450.

TOTAL TMU 970.

#### File Description ? SHEAR CORNERS FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1) FIT .W11 BLKEND.M03

SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

- \* 20 GAUGE GALV. SHEETMETAL \* 8'X6' BLANK END PIECE

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
2	OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS		
	Al BO G1 M6 X16 IO AO	1.00	240.
3	POSITION SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO		
	LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3		
	Al BO G1 A6 BO P6 A0	3.00	420.
4	OPERATE [NOTCH PUNCH] LEAFBRAKE-LEVER PROCESS F 3		
	Al BO G1 M6 X16 IO AO	3.00	720.
5	REPLACE SHEETHETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO		
	CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
6	MOVE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE		
	WITH 5 STEPS		
	Al B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU 1760.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

2730

( 39, 1) FIT .W11

BLKEND.M04

BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL

SHOP
PER BLANK END
OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6' BLANK END PIECE
- \* BEND FLANGES UP 45 DEGREES PARTIAL BEND
- \* COMPLETE BENDS TO 90DEGREES ON PANBRAKE

1 POSITION SHEETMETAL 2 FROM CART AT LEAFBRAKE TO

FITTER BEGINS AT LEAFBRAKE

LEAFBRAKE WITH 4 STEPS	
Al B0 G1 A6 B0 P6	A0 1.00 140.
2 OPERATE LEAFBRAKE-LEVER PROCESS	
Al BO G1 M6 X16 IO	
3 POSITION SHEETMETAL2 FROM LEAFBRAKE TO LEAFBRAK	EF3
Al BO G1 Al BO P6	A0 3.00 270.
4 OPERATE LEAFBRAKE-LEVER PROCESS F 3	

4	4 OPERATE	LEAFBRAKE-L	EVER	PROC	ESS	F 3						
				Al	В0	G1	Нб	X16	ΙO	A0	3.00	720.
9	REPLACE	SHEETMETAL	FROM	LEA:	FBRA	KE T	O CZ	ART A	T LE	AFBRAKE		

_	WITH	1 4 ST	EPS				-	0 011						
					Al	В0	G1	Аб	В0	P3	A0	1.	00	110.
6	MOVE	CART	FROM	LEAFBRAKE	TO	PANB	RAKE	1 1						
					Al	в0	G1	A42	в0	P1	A0	1.	00	450.

TOTAL TMU 1930.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <orH for help> ?

4660

File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 BLKEND.M05

BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH PANBRAKE AT SHEETMETAL SHOP

PER BLANK END OFG: 4 06-JUL-83

NASSCG SHEETMETAL BLANK END

- \* 20 GAUGE GALV. SHEETMETAL
- \* 8'X6' BLANK END PIECE
- \* COMPLETE 90 DEGREE BENDS ON FLANGES

FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL FROM CART AT PANBRAKE TO PANBRAKE WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2.	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3		
_	WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 2		
	Al BO G1 Al BO P3 F6 Al BO P1 AO	2.00	280.
2	OPERATE PANBRAKE-LEVER PROCESS	2.00	200.
3		1 00	1040
	Al BO G1 M6 X96 IO AO	1.00	1040.
4	POSITION SHEETMETAL FROM PANBRAKE TO PANBRAKE F 3		
	Al BO G1 Al BO P6 AO	3.00	270.
5	OPERATE PANBRAKE-LEVER PROCESS F 3		
	Al B0 G1 M6 X96 IO A0	3.00	3120.
6	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE		
-	WITH 4 STEPS		
	Al BO G1 A6 BO P3 A0	1.00	110.
7	MOVE CART FROM PANBRAKE TO WORKTABLE	1.00	110.
,		1 00	C00
	Al B0 G1 A54 B3 P1 A0	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10220

5560 .

TOTAL TMU

## SHEET METAL BLANK END

### CO"X 14" BLANK END PIECE

FAB	10420	6 MIN.
MARK out	5150	3 MIN.
TOTAL	15,576	9 MIN.

#### File Description ? MARK OUT BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 BLKEND.M20

MARK OUT BLANK END WITH AWL AT SHEETMETAL SHOP

PER BLANK END OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X14' BALNK END PIECE
- \* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	Al B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4)	1.00	1400.
2	MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT		
	USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 _) Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12)	1.00	640.
3	POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	040.
J	WORKTABLE WITH 2 STEPS F 6		
	Al BO G1 A3 BO P6 A0	6.00	660.
4	MARK LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS USING		
	AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
_	Al B0 G1 (Al B0 P1 R16 )A1 B0 P1 A0 (6)	1.00	1120.
5	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 2 DIGITS		
	USING REDPEN AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R6 )A1 B0 P1 A0 (6)	1.00	520.
6	PLACE SHEETMETAL FROM WORKTABLE TO CART AT WORKTABLE	1.00	520.
U	WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
7	MOUE CART FROM WORKTABLE TO SMALLSHEAR		
	Al BO G1 A67 BO P1 A0	1.00	700.

TOTAL TMU

5150.

#### File Description ? SHEAR SHEETMETAL FOR BLANK END

Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 BLKEND.M21

SHEAR SHEETMETAL FOR BLANK END WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X14' BLANK END

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM CART AT SMALLSHEAR WITH 4 STEPS	SMALLSHEAR TO
	A1 B0	G1 A6 B0 P6 A0 1.00 140.
2	PUSH FOOTPEDAL AT SMALLSHEAR PROC	ESS
	Al BO	G1 Ml X6 I0 A0 1.00 90.
3	POSITION SHEETMETAL FROM SMALLSH	CAR TO SMALLSHEAR
	Al BO	G1 Al B0 P6 A0 1.00 90.
4	PUSH FOOTPEDAL AT SMALLSHEAR PROC	ESS
	Al BO	G1 M1 X6 IO AO 1.00 90.
5	REPLACE SHEETMETAL FROM SMALLSHE. 4 STEPS	AR TO SMALLSHEAR WITH
	Al BO	G1 A6 B0 P3 A0 1.00 110.
6		BRAKE [NOTCH PUNCH]
	Al BO	1 A42 B0 P1 A0 1.00 490.

TOTAL TMU

970.

File Description ? SHEAR CORNERS FOR BLANK END

Output to line-Printer <Y or N> ? N

( 39, 1) FIT • W11 BLKEND.22

SHEAR CORNERS FOR BLANK END WITH NOTCH PUNCH AT SHEETMETAL SHOP PER BLANK END OFG: 4 31-MAY-83

NASSCO SHEETMETAL BLANK END

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X14' BLANK END PIECE

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FROM CART AT LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	Al B0 G1 A6 B0 P6 A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS		
	Al BO G1 M6 X16 IO AO	1.00	240.
3	POSITION SHEETMETAL2 FROM LEAFBRAKE [NOTCH PUNCH] TO		
	LEAFBRAKE [NOTCH PUNCH] WITH 3 STEPS F 3		
	Al BO G1 A6 BO P6 A0	3.00	420.
4	OPERATE LEAFBRAKE-LEVER [NOTCH PUNCH] PROCESS F 3		
	A1 B0 G1 M6 X16 I0 A0	3.00	720.
5	REPLACE SHEETMETAL FROM LEAFBRAKE [NOTCH PUNCH] TO		
	CART AT LEAFBRAKE [NOTCH PUNCH] WITH 4 STEPS		
	A1 B0 G1 A6 B0 P3 A0	1.00	110.
6	MOUE CART FROM LEAFBRAKE [NOTCH PUNCH] TO LEAFBRAKE WITH 5 STEPS		
		4 00	
	A1 B0 G1 A10 B0 P1 A0	1.00	130.

TOTAL TMU 1760.

File Description ? BEND PARTIAL BENDS FOR BLANK END

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 BLKEND.M23

BEND PARTIAL BENDS FOR BLANK END WITH LEAFBRAKE AT SHEETMETAL SHOP

PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X14' BLANK END PIECE
- \* BEND FLANGES UP 45 DEGREES PARTIAL BEND
- \* COMPLETE BENDS TO 90DEGREES ON PAN BRAKE FITTER BEGINS AT LEAFBRAKE .
- 1 POSITION SHEETMETAL FROM CART AT LEAFBRAKE TO LEAFBRAKE WITH 4 STEPS

		Al	В0	G1	Аб	в0	Pб	A0	1.00	140.
2	OPERATE LEAFBRAKE-LEVER	PROC	ESS							
		Al		G1		X16	ΙO	A0	1.00	240.
3	POSITION SHEETMETAL FRO	OM LE.	AFBR	AKE	TO L	EAFB:	RAKE	F 3		
			В0		Al	в0	Р6	A0	3.00	270.
4	OPERATE LEAFBRAKE-LEVER									
_		Al		_G1_		X16	_I0_	A0	3.00	720.
5	REPLACE SHEETMETAL FROM	/I LEA	F'BRA	KE T	O CA	RT' A	L PE	AFBRAKE		
	WITH 4 STEPS									
		A1	B0		A6	В0	P3	A0	1.00	110.
	MOVE CART FROM LEAFBRA	KE TO	PAN	BRAKE	C					
		Al	В0	G1	A42	в0	Р1	A0	1.00	450.

TOTAL TMU 1930.

File Description ? BEND SHEETMETAL UP 90 DEGREES FOR BLANK END Output to line-printer <Y or N> ? N

( 39, 1)

FIT .W11 BLKEND.M24

BEND SHEETMETAL UP 90 DEGREES FOR BLANK END WITH FAN-BRAKE AT SHEETMETAL SHOP

PER BLANK END OFG: 4 06-JUL-83

NASSCO SHEETMETAL BLANK END

- \* 18 GAUGE GALV. SHEETMETAL
- \* 20'X14' BLANK END PIECE
- \* COMPLETE 90 DEGREE BENDS ON FLANGES

FITTER BEGINS AT PANBRAKE

1	POSITION SHEETMETAL FROM CART AT FANBRAKE TO PANBRAKE WITH 4 STEPS		
	Al BO G1 A6 BO P6 A0	1.00	140.
2	FASTEN NUT [JAWS] TO SHEETMETAL AT PANBRAKE 3		
	WRIST-TURNS USING WRENCH AT PANBRAKE AND ASIDE F 3		
	Al BO G1 Al BO P3 F6 A1 BO P1 A0	3.00	420.
3	OPERATE PANBRAKE-LEVER PROCESS		
_	Al BO G1 M6 X96 IO AO	1.00	1040.
4	POSITION SHEETMETAL2 FROM PANBRAKE TO PANBRAKE WITH 2	1.00	1010.
	STEPS F 3		
	Al BO G1 A3 BO P6 A0	3.00	330.
_	OPERATE PANBRAKE-LEVER PROCESS F 3	3.00	330.
5	A1 B0 G1 M6 X96 I0 A0	3.00	3120.
_		3.00	3120.
6	REPLACE SHEETMETAL FROM PANBRAKE TO CART AT PANBRAKE		
	WITH 4 STEPS		
	Al B0 G1 A6 B0 P3 A0	1.00	110.
7	MOVE CART FROM PANBRAKE TO WORKTABLE		
	Al BO G1 AS4 B3 Pl AO	1.00	600.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

10,420

5760.

TOTAL TMU

### SHEETMETAL BRACKET

## 4" X 8" BRACKET

FAB:	6,400	4 MIN
MARK out	5.440	3 MIN
TOTAL TMU.	11,840	7 MIN

#### File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M01

MARK OUT SHEETMETAL FOR BRACKET WITH-AWL AT SHEETMETAL SHOP PER-BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

- \* 16 GAUGE GALV. SHEETMETAL
- \* 4'X8' BRACKET
- \* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE A54 B6 G1 A54 B3 P1 A0	1.00	1190.
2	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4	1.00	1170.
2	Al BO G1 A1 BO P1 M32 A1 BO P1 A0 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT	4.00	1520.
J	USING AWL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE		
	AND ASIDE PF 6 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6)	1.00	340.
4	POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 3		
_	Al B0 G1 A1 B0 P6 A0	3.00	270.
5	MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )		
6	Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (3) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	580.
U	WORKTABLE F 2		
7	Al B0 G1 Al B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL AT WORKTABLE 1 STRIKE USING	2.00	180.
	HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (A1 BO PO F3 )A1 BO P1 AO (2)	1.00	120.
8	MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	120.
	USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (2)	1.00	400.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
	ASIDE PF 2 ( 4 5 6 7 )	1 00	1.40
10	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (2) MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1.00	140.
	Al B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

5440.

File Description ? MARK OUT SHEETMETAL FOR BRACKET
Output to line-printer <Y or N> ?

#### File Description ? SHEAR SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M02

SHEAR SHEETMETAL FOR BRACKET WITH SMALL 8FT. SHEAR AT SHEETMETAL

SHOP

PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

\* 16 GAUGE GALV. SHEETMETAL

\* 4'X8' BRACKET

FITTER BEGINS AT SMALLSHEAR

1	POSITION SHEETMETAL FROM	I FIT	TER	AT S	SMAI	LSHE	AR T	0		
	SMALLSHEAR	Al	в0	G1	Al	в0	Р6	A0	1.00	90.
2	PUSH FOOTPEDAL AT SMALLS					х6	ΙO	A0	1.00	90.
3	POSITION SHEETMETAL FROM	- ~				SMAL B0	_~		1.00	90.

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS Al BO G1 Ml X6 IO AO 1.00 90.

5 MOVESHEETMETAL2 FROM SMALLSHEAR TO LEAFBRAKE Al B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 810.

File Description ? SHEAR SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ?

#### File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12

BRACKT.M03

BEND SHEETMETAL UP 90 DEGREES WITH LEAFBRAKE AT SHEETMETAL SHOP PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

- \* 16 GAUGE GALV. SHEETMETAL
- \* 4'X8' BRACKET
- \* BEND SHEETMETAL 90 DEGREES

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE

		AI	В0	G1	$A \perp$	В0	Р6	Α0	1.00	90.
2	OPERATE LEAFBRAKE-LEVER	PROC	CESS							
		A1	в0	G1	Мб	X16	ΙO	A0	1.00	240.
3	MOVE SHEETMETAL FROM LE	AFBR	AKE	TO	WORK1	CABLE				
		Al	B0	G1	A81	В3	Ρ1	A0	1.00	870.

TOTAL TMU 1200.

File Description ? BEND SHEETMETAL UP 90 DEGREES

Output to line-printer <Y or N> ? C

File Description ? RIVET BRACKET TO VENT DUCT

Output to line-printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M04

RIVET BRACKET TO VENT DUCT WITH RIVET GUN AT SHEETMETAL SHOP
'PER BRACKET

OFG: 4 24-JUN-83

NASSCO SHEETMETAL BRACKET

- \* 16 GAUGE GALV. SHEETMETAL
- \* 4'X8' BRACKET

FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL [BRACKETS] FROM FITTER AT WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE		2.2
	Al BO G1 A1 BO P6 A0	1.00	90.
2	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al BO G1 Al BO P3 F6 Al BO P1 AO	1.00	140.
3	POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE F 8		
	Al BO G1 Al BO P6 AO	8.00	720.
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8		
_	Al BO G1 M6 X6 TO AO	8.00	1120.
5	112 20 61 110 110 110	0.00	1120.
,	WORKTABLE F 8		
		8.00	720.
_	112 20 02 112 20 10 110	0.00	720.
6	10011101 Ittylitott 10 billillillilli Itt Woldtinger 1		
	Al BO G1 Al BO P6 AO	8.00	720.
	7 OPERATE RIVETGUN AT WORKTABLE PROCESS F 8		
	A1 B0 G1 M6 X3 I0 A0	8.00	880.

File Description ? RIVET BRACKET TO VENT DUCT
Output to line-printer <Y or N> ?

6400

4390.

TOTAL TMU

### SHEET METAL BRACKET

# 12"X8" BRACKET

FAB	6,400	4	MIN
MARK out	5,440	3	MIN
JOFOL TMU.	11.840	7	HIN

#### File Description ? MARK OUT SHEETMETAL FOR BRACKET

Output to line-printer <Y or N> ? N

(39,101)

FIT • W12 BRACKT.M20

MARK OUT SHEETMETAL FOR BRACKET WITH AWL AT SHEETMETAL SHOP PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

- \* 16 GAUGE GALV. SHEETMETAL
- \* 12'X8' BRACKET

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE A54 B6 G1 A54 B3 P1 A0	1.00	1190.
2	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE F 4	4 00	1500
3	Al B0 G1 Al B0 P1 M32 Al B0 P1 A0 MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )	4.00	1520.
4	Al B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6) POSITION SQUARE FROM WORKTABLE TO SHEETMETAL AT	1.00	340.
_	WORKTABLE F 3  Al B0 G1 Al B0 P6 A0  MARK SHEETMETAL FROM SQUARE AT WORKTABLE 5 DIGITS USING	3.00	270.
5	AWL AT WORKTABLE AND ASIDE PF 3 ( 4 5 6 7 )  Al BO Gl (Al BO P1 R16 )A1 B0 P1 A0 (3)	1.00	580.
	6 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2		
7	Al B0 G1 Al B0 P6 A0 FASTEN CPUNCH AT WORKTABLE 1 STRIKE USING HAMMER AT	2.00	180.
8	WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )  Al B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2)  MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	120.
	USING REDPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (A1 BO P1 R16 )A1 BO P1 AO (2)	1.00	400.
9	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
10	ASIDE PF 2 ( 4 5 6 7 )  Al B0 G1 (Al B0 P1 R3 )A1 B0 P1 A0 (2)  MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1.00	140.
_0	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU 5440.

File Description ? MARK OUT SHEETMETAL FOR BRACKET
Output to line-printer <Y or N> ?

#### File Description ? SHEAR SHEETMETAL FOR VENT DUCT

#### ( Dutput to line-Printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M21

SHEAR SHEETMETAL FOR VENT DUCT WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO

PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

\* 16 GAUGE GALV. SHEETMETAL

\* 12'X8' BRACKET

FITTER BEGINS AT SMALLSHEAR

	SMALLSHEA	AR									
			A	l BC	) G1	Al	В0	Pб	A0	1.00	90.
2	PUSH FOOT	PEDAL AT	SMALLSHE	AR PI	ROCESS						
			A	.l BC	) G1	Ml	Хб	ΙO	A0	1.00	90.
3	POSITION	SHEETMET.	AL FROH	SMALL	SHEAR	TO	SMAL	LSHE.	AR		
			A	.l BC	) G1	Al	в0	Рб	A0	1.00	90.
4	DIICH FOOT	DEDAT. AT	CMAT.T.CHE	ום סגי							

4 PUSH FOOTPEDAL AT SMALLSHEAR PROCESS

Al B0 G1 Ml X6 I0 A0 1.00 90.

5 MOVE SHEETMETAL FROM SMALLSHEAR TO LEAFBRAKE

Al B0 G1 A42 B0 P1 A0 1.00 450.

TOTAL TMU 8 1 0 .

File Description ? SHEAR SHEETMETAL FOR VENT DUCT
OutPut to line-printer <Y or N> ?

File Description ? BEND SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ? N

(39,101)

FIT .W12 BRACKT.M22

BEND SHEETMETAL FOR BRACKET WITH LEAFBRAKE AT SHEETMETAL SHOP PER BRACKET OFG: 4 23-JUN-83

NASSCO SHEETMETAL BRACKET

- \* 16 GAUGE GALV. SHEETMETAL \* 12'X8' BRACKET

FITTER BEGINS AT LEAFBRAKE

1 POSITION SHEETMETAL FROM FITTER AT LEAFBRAKE TO LEAFBRAKE

			Al	В0	G1	A1	в0	Р6	A0	1.00	90.
2	OPERATE LEAFE	BRAKE-LEV	ER PRO	CESS							
			Al	в0	G1	Мб	X16	ΙO	A0	1.00	240.
3	MOVE SHEETMET	TAL FROM	LEAFBE	RAKE	TO	WORK1	TABLE				
			A1	в0	G1	A81	В3	Ρ1	A0	1.00	870.

TOTAL TMU 1200.

File Description ? BEND SHEETMETAL FOR BRACKET

Output to line-Printer <Y or N> ?

2010

( 39,101) FIT • W12

BRACKT.M23

	RIVET	BRACKET	ON	VENT	DUCT	WITH	RIVETGUN	AT	SHEE	TMI	ETAL	SHOP
PEI	R BRACKET	Γ						(	OFG:	4	06-0	TUL-83
NASSCO SHEETMETAL BRACKET												
	* 16	GAUGE GAI	٦V.	SHEET	<b>IMETAI</b>	ı						

\* 12'X5' BRACKET FITTER BEGINS AT WORKTABLE

1	POSITION SHEETMETAL BRACKET FROM FITTER AT WORKTABLE T SHEETMETAL VENT DUCT AT WORKTABLE	0	
	Al BO G1 Al BO P6 AO	1.00	90.
2	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE		
	Al B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
3	POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 8		
	Al BO G1 Al BO P6 AO	8.00	720,
4	OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 8		
	Al BO G1 M6 X6 IO AO	8.00	1120.
5	1 OCTITOR REVER TROST WORKERDED TO SHEETHERINE III		
	WORKTABLE F 8		
	Al BO G1 Al BO F6 AO	8.00	720.
6	FOSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT		
	WORKTABLE F 8		
	Al B0 G1 A1 B0 P6 A0	8.00	720.
7	OPERATE RIVETGUN AT WORKTABLE PROCESS F 8		
	Al B0 G1 M6 X3 I0 A0	8.00	880.
	TOTAL	TMU	4390.

File Description.? RIVET BRACKET TO VENT DUCT
Output to line-Printer <Y or N> ?

6,400

# SHEEF METAL BALANCE DAMPER

6"X8" BALANCE DAMPER

FAB 20,870 12. MIN.
MARK OUT 11,270 6 MIN.
TO TAL TMU. 32,140 19 MIN

#### File Description ? MARK OUT BALANCE DAMPER

utput to line-printer <Y or N> ? N

(	39,	1)

FIT • W11 BDAMP .MO1

MARK OUT SHEETMETAL FOR BALANCE DAMPER WITH AWL AT SHEETMETAL SHOP

PER DAMPER OFG: 4 22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' DAMPER BLADE
- \* MARK OUT WITHOUT TEMPLATE

FITTER BEGINS AT WORKTABLE

1	MOVE SHEETMETALSCRAP FROM SCRAPBIN TO WORKTABLE A152B3 G1 A152B3 F1 A0	1.00	3120.
2	MEASURE DIMENSIONS ON SHEETMETAL AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
3	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 12 ( 4 5 6 7 )	1.00	1400.
4	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (12) POSITION STRAIGHTEDGE FROM WORKTABLE TO SHEETMETAL AT	1.00	640.
0	WORKTABLE F 7  A1 B0 G1 A1 B0 P6 A0	7.00	630.
9	MARK LINES ON SHEETMETAL FROM STRAIGHTEDGE TO SHEETMETAL AT WORKTABLE 5 DIGITS USING AWL AT WORKTABLE AND ASIDE PF 7 ( 4 5 6 7 )		
6	A1 B0 G1 (A1 B0 P1 R16 )A1 B0 P1 A0 (7) MARK CUT LINES ON SHEETMETAL AT WORKTABLE 5 DIGITS	1.00	1300.
	USING REPPEN AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 ) Al BO G1 (Al BO P1 R16 )Al BO P1 AO (2)	1.00	400.
7	MARK CONSTRUCTION INFORMATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND		
0	ASIDE PF 8 ( 4 5 6 7 )  Al BO G1 (Al BO P1 R3 )Al BO P1 AO (8)	1.00	440.
8	MARK IDENTIFICATION ON SHEETMETAL AT WORKTABLE 1 DIGIT USING BLACKPEN AT WORKTABLE AND ASIDE PF 52 ( 4 5 6 7		
a	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (52) MOVE SHEETMETAL FROM WORKTABLE TO SMALLSHEAR	1.00	1,640.
)	A1 B0 G1 A67 B0 P1 A0	1.00	700.

TOTAL TMU

11270.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? SHEAR SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 BDAMP .M02

SHEAR SHEETMETAL FOR BALANCE DAMPER WITH SMALL 8FT. SHEAR AT SHEETMETAL SHOP

PER DAMPER OFG: 4 22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' DAMPER BLADE
- \* SHEAR MITERS ON ENDS

FITTER BEGINS AT SMALLSHEAR

1 POSITION SHEETMETAL FROM FITTER AT SMALLSHEAR TO SMALLSHEAR

				A1	В0	G1	A1	В0	Р6	Α0		1.00	90.
2	PUSH	FOOTPEDAL	AT SMA	LLSHEAF	R PRC	CESS	5						
				A1	в0	G1	M1	Хб	ΙO	A0		1.00	90.
3	POSIT	CION SHEET	METAL E	FROM SM	ALLS:	HEAR	TO .	SMAL	LSHE	CAR F	5		
				A1	в0	G1	A1	в0	Рб	A0		5.00	450.
4	OPERA	TE FOOTPEI	DAL AT S	SMALLSH:	EAR I	PROC:	ESS.	F 5					
				A1	в0	G1	Мб	Хб	ΙO	A0		5.00	700.
5	MOVE	SHEETMETA	L FROM	SMALLS	HEAR	TO	WORK	TABL	ıΕ				
				A1	в0	G1	A67	В3	Р1	A0		1.00	730.
													,

TOTAL TMU 2060.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? BEND SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

(39, 1)

FIT .W11 BDAMP .MO3

BEND SHEETMETAL FOR BALANCE DAMPER WITH LEAFBRAKE AT SHEETMETAL

SHOP

PER DAMPER OFG: 4 22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' BALANCE DAMPER
- \* BEND DAMPER BLADE OVER 190--
- \* --DEGREES FOR HEMMED EDGE

FITTER BEGINS AT LEAFBRAKE

1	POSITION SHEETMETAL FRO	M FI	TTER	ΑT	LEAF	'BRAKI	E TO			
	LEAFBRAKE									
		A1	в0	G1	A1	в0	Р6	A0	1.00	90.
2	OPERATE LEAFBRAKE-LEVER	PROC	ESS							
		A1	В0	G1	Мб	Xl6	ΙO	A0	1.00	240.
3	POSITION SHEETMETAL FRO	M LE	AFBRA	AKE	TO I	LEAFB:	RAKE	F 3		
		A1	в0	G1	A1	в0	16	A0	3.00	270.

4 OPERATE LEAFBRAKE-LEVER PROCESS F 3 A1 B0 G1 M6 X16 I0 A0 3.00 720. 5 MOVE SHEETMETAL FROM LEAFBRAKE TO WORKTABLE

A1 B0 G1 A81 B3 P1 A0 1.00 870.

TOTAL TMU 2190.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4250

#### File Description ? DRILL SHEETMETAL FOR BALANCE DAMPER

Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11 BDAMP .M04

DRILL SHEETMETAL FOR BALANCE DAMPER WITH DRILLMOTOR AT SHEETMETAL SHOP

PER DAMPER OFG: 4 22-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

- \* 20 GAUGE GALV. SHEETMETAL \* 6'X8' BALANCE DAMPER
- \* HOLES IN VENT DUCT AND DAMPER BLADE--
- \* --FOR DAMPER PARTS

	FITTER BEGINS AT WORKTABLE		
	MOVE DAMPERPARTS FROM STORAGEBIN TO WORKTABLE A81 B0 G1 A81 B3 P1 A0	1.00	1670.
2	MEASURE DIMENSIONS ON SHEETMETAL [VENT DUCT] AT WORKTABLE USING STEEL-TAPE AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
3	A1 B0 G1 (A1 B0 P1 M32 )A1 B0 P1 A0 (4) MARK DIMENSIONS ON SHEETMETAL AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )	1.00	1400.
4	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL AT	1.00	240.
5	WORKTABLE F 2  A1 B0 G1 A1 B0 P6 A0  FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1  STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 2 ( 4 5 6 7 )	2.00	180.
6	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (2) FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	1.00	120.
7	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	140.
8	A1 B0 G1 A1 B0 P6 A0 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2	2.00	180.
9	A1 B0 G1 M6 X6 I0 A0 LOOSEN 5-32DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	2.00	280.
10	A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0 FASTEN 1-2DRILLBIT TO DRILLMOTOR AT WORKTABLE 3	1.00	140.
11	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 POSITION DRILLMOTOR FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	140.
12	A1 B0 G1 A1 B0 P6 A0 OPERATE DRILLMOTOR AT WORKTABLE PROCESS F 2	2.00	180.
	A1 B0 G1 M6 X6 I0 A0 LOOSEN SHEETMETAL SCREWS FROM DAMPERPARTS AT WORKTABLE 5 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF	2.00	280.
14	4 ( 4 5 6 7 ) Al BO Gl (Al BO P3 L10 )Al BO P1 AO (4) PLACE DAMPERPARTS FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 2	1.00	600.

	DUANN 100 T		
	A1 B0 G1 A1 B0 P3 A0	2.00	120.
15	POSITION SHEETMETAL DAMPERBLADE FROM WORKTABLE TO DAMPERPARTS AT WORKTABLE		,
16	A1 B0 G1 A1 B0 P6 A0 MARK RIVET HOLES FROM DAMPERPARTSTO SHEETMETAL [VENT	1.00	90.
	DUCT] AT WORKTABLE 1 DIGIT USING AWL AT WORKTABLE AND ASIDE PF 6 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (6)	1.00	340.
17	MARK SCREW HOLES FROM DAMPERPARTS TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1 DIGIT USING AWL AT		
	WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 ) A1 B0 G1 (A1 B0 P1 R3 )A1 B0 P1 A0 (4)	1.00	240.
18	REPLACE SHEETMETAL DAMPERBLADE FROM SHEETHETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE		
	A1 B0 G1 A1 B0 P3 A0	1.00	60.
19	REPLACE DAMPERPARTS FROM SHEETMETAL [VENT DUCT] AT WORKTABLE TO WORKTABLE	1 00	60
20	Al B0 G1 A1 B0 P3 A0 POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL [VENT	1.00	60.
	DUCT] AT WORKTABLE F 6		
21	A1 B0 G1 A1 B0 P6 A0 FASTEN CPUNCH TO SHEETMETAL [VENT DUCT] AT WORKTABLE 1	6.00	540.
<b>Z T</b>	STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 6 ( 4 5		
	67)		
2.2	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (6) POSITION CPUNCH FROM WORKTABLE TO SHEETMETAL	1.00	280.
22	DAMPERBLADE AT WORKTABLE F 6		
	Al BO Gl Al BO P6 AO	6.00	540.
23	FASTEN CPUNCH TO SHEETMETAL DAMPERBLADE AT WORKTABLE 1		
	STRIKE USING HAMMER AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P0 F3 )A1 B0 P1 A0 (4)	1.00	200.
	24 LOOSEN 1-2DRILLBIT FROM DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE  A1 B0 G1 A1 B0 P3 L6 A1 B0 P1 A0	1.00	140.
25	FASTEN 7.32DRILL-BIT TO DRILLMOTOR AT WORKTABLE 3	1.00	140.
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE	1 00	1.40
26	A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0 POSITION DRILLMOTOR TO SHEETMETAL [DAMPERBLADE] AT	1.00	140.
20	WORKTABLE F 4		
0.5	A1 B0 G1 A1 B0 P6 A0	4.00	360.
27	OPERATE DRILLMOTOR PROCESS F 4  Al B0 G1 M6 X6 I0 A0	4.00	560.
28	PLACE FILE TO SHEETMETAL AT WORKTABLE F 4	1.00	300.
0.0	A1 B0 G1 A1 B0 P3 A0	4.00	240.
29	LOOSEN 7.32DRILL-BIT FROM DRILLMOTOR AT WORKTABLE 3 WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE PF 6		
	( 4 5 6 7 )		
	A1 B0 G1 (A1 B0 P3 L6 )A1 B0 P1 A0 (6)	1.00	640.
30	FASTEN 5-32DRILLBIT TO DRILLMOTOR AT WORKTABLE 3		
	WRIST-TURNS USING CHUCKKEY AT WORKTABLE AND ASIDE A1 B0 G1 A1 B0 P3 F6 A1 B0 P1 A0	1.00	140.
31	POSITION DRILLMOTOR TO SHEETMETAL AT WORKTABLE [VENT	_,,,	
	DUCT] F 6	6 00	F 4 0
32	Al B0 G1 A1 B0 P6 A0 OPERATE DRILLMOTOR PROCESS F 6	6.00	540.
	A1 B0 G1 M6 X6 I0 A0	6.00	840.
3	3 POSITION FILE TO SHEETMETAL AT WORKTABLE F 4	4 00	260
34	Al BO G1 A1 BO P6 AO DEBURR SHEETMETAL AT WORKTABLE 5 ARM-STROKES USING FILE	4.00	360.
J 1			

#### WUMPII 1144

AT WORKTABLE AND ASIDE PF 4 ( 4 5 6 7 )

Al BO G1 (Al BO P1 C6 )Al BO P1 AO (4) 1.00 360.

TOTAL TMU 12340.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

#### File Description ? ASSEMBLE BALANCE DAMPER

Output to line-printer <Y or N> ? N

( 39, 1) FIT • W11

BDAMP .M05

ASSEMBLE BALANCE DAMPER WITH SCREWDRIVER AT SHEETMETAL SHOP PER DAMPER OFG: 4 23-JUN-83

NASSCO SHEETMETAL BALANCE DAMPER

- \* 20 GAUGE GALV. SHEETMETAL
- \* 6'X8' BALANCE DAMPER
- \* RIVET DAMPER QUADRANT TO VENT DUCT

FITTER BEGINS AT WORKTABLE

1	PLACE DAMPER PART FROM WORKTABLE TO SHEETMETAL [VENT DUCT] AT WORKTABLE F 2.		
2	A1 B0 G1 A1 B0 P3 A0 PLACE SHEETMETAL [DAMPER BLADE] FROM WORKTABLE TO DAMPER PARTS AT WORKTABLE	2.00	120.
3	A1 B0 G1 A1 B0 P3 A0 POSITION SHEETMETAL [SCREWS] FROM WORKTABLE TO DAMPER	1.00	60.
4	PARTS AT WORKTABLE F 4  Al B0 G1 A1 B0 P6 A0	4.00	360.
4	POSITION SCREWDRIVER FROM WORKTABLE TO SHEETMETAL [SCREWS] AT WORKTABLE F 4		
5	A1 B0 G1 A1 B0 P6 A0 FASTEN SHEETMETAL SCREWS TO DAMPER PARTS AT WORKTABLE 5 WRIST-TURNS USING SCREWDRIVER AT WORKTABLE AND ASIDE P F 4 ( 4 5 6 7 )	4.00	360.
6	A1 B0 G1 (A1 B0 P3 F10 )A1 B0 P1 A0 (4) POSITION RIVET FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	1.00	600.
7	A1 B0 G1 A1 B0 P6 A0 POSITION RIVETGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 6	6.00	540.
8	A1 B0 G1 A1 B0 P6 A0 OPERATE RIVETGUN AT WORKTABLE PROCESS F 4	6.00	540.
	A1 B0 G1 M6 X3 I0 A0 POSITION CAULKINGGUN FROM WORKTABLE TO SHEETMETAL AT WORKTABLE F 8	4.00	440.
10	A1 B0 G1 A1 B0 P6 A0 GRIP SEALANT TO SHEETMETAL AT WORKTABLE USING	8.00	720.
11	CAULKINGGUN AT WORKTABLE AND ASIDE PF 8 ( 4 5 6 7 ) Al BO Gl (Al BO P3 Cl )Al BO Pl AO (8)	1.00	440.
ТТ	INSPECT SHEETMETAL AT WORKTABLE 9 POINTS  A0 B0 G0 A0 B0 P0 T10 A0 B0 P0 A0	1.00	100.

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

4280.

TOTAL TMU

| FNELD . W 0 1 (39,101)

	WEL:	WATER:	! WELDMACHINE	! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
			(X)	
! ! ! TOOLROOM !		!!!	WORKTABLE	!
Name	Location		Body/Fras	A/PT
WORKPLACES: WELDTABLE TOOLROOM WELDMACHINES WORKTABLE WATERTANK	15,8 0,0 55,16 45,1 44,16	55,7 10,5 16,4 25,4 10,2	PBEND	
TOOLS: STINGER1 STINGER2 WOODBLOCKS WIREBRUSH WEIGHTS WELDGUN WELDROD ANTI-SPATTER SLAGHAMMER PLIERS SMALLBRUSH FOXTAIL GROUNDCLAMPS WIRECUTTERS PAPER PEN RODS WIRE WELDHOOD	WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE WELDTABLE TOOLROOM TOOLROOM			

OBJECTS:		
S.M.ASSEMBLY	WELDTABLE	
ASSEMBLY	WORKTABLE	FRAG
CART	WORKTABLE	FRAG
EQUIPMENT:		
VENTHOSE1	WELDTABLE	
VENTHOSE2	WELDTABLE	
STINGER-BUTTON2	WELDTABLE	
STINGER-BUTTON1	WELDTABLE	30 S
ANTI-SPATTER2	WELDTABLE	3 S
LEVER	WELDMACHINES	
CRANK	WELDMACHINES	
MIG-SWITCH	WELDMACHINES	
TIG-SWITCH	WELDMACHINES	
GAS-HOOKUP-SWITCH	WELDMACHINES	
BUTTON	WELDMACHINES	
POWER-SUPPLY-SWITCH	WELDMACHINES	
SWITCH	WATERTANK	
OPERATORS:		
WELDOR	WELDTABLE	38,16 B
FITTER	WORKTABLE	57,6
E	m-	Q b
From	To	Steps
	400 4000 mile 400 mile mil mil mil mil mil mil mil mil	
WELDTABLE	TOOLROOM	75
WELDTABLE	WELDMACHINES	2
WELDTABLE	WORKTABLE	71
WELDTABLE	WATERTANK	1
TOOLROOM	WELDMACHINES	76
TOOLROOM	WORKTABLE	52
TOOLROOM	WATERTANK	76
WELDMACHINES	WORKTABLE	72
WELDMACHINES	WATERTANK	2
WORKTABLE	WATERTANK	72

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

File Description ? FIT AREA WITH SECOND SEAM WELDER EXPANSION

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

Output to line-printer <Y or N> ? N

FIT W 1 4 ( 39,101)			
! WELDOUT ! ! WORKTABLE (X)	! SPOT	WELDER !	! SCRAPBIN!
! FLANGEAREA! ! DRILLPRESS !			!14FT.SHEAR
!GASKET-CUTTING-TABLE!! ROLLE	R!! LAPOUT!	! HYDROPR	ESS !
! PANBRAKE !! NIBBLER!! P	ITTSBURGH!!	SMALLSHEAR	SEAMWELDER!
! CORNICEBRAKE !! WORKBENCH	! EDGER! !		!SHEETMETAL-STORAGE!
! LEAFBRAKE !! BARFOLDER	!		
	! TOOLROOM	! MARKOUT-S	TORAGE!! MARKOUT!
Name	Location	<u>1</u> 	Body/Frag/PT
WORKPLACES: WORKTABLE 14FTHYDROPRESSBRAKE	15,19 30,3 0,19	12,2 19,2	PBEND
WELDOUT DRILLPRESS PANBRAKE CORNICEBRAKE	0,19 15,16 5,10 10,7	13,2 11,2	PBEND
LEAFBRAKE WORKBENCH SMALLSHEAR PITTSBURGH	4,1 18,4 40,10 27,10	12,2 11,2 10,2 12,2	PBEND
LAPOUT SCRAPBIN TOOLROOM ROLLER EDGER NIBBLER FLANGEAREA PLASMA-ARC HYDROPRESS	32,13 61,19 30,0 23,13 30,7 17,10 0,16 50,3 42,13	11,2 8,2 7,2 9,2 12,2 12,2 15,2	BEND
SPOTWELDER GASKET-CUTTING-TABLE	35,19 0,13	13,2 21,2	

BARFOLDER 14FT.SHEAR PED.GRINDER STORAGEBIN MARKOUT-STORAGE MARKOUT SHEETMETAL-STORAGE SEAMWELDER	17,1 55,16 30,16 0,4 41,0 62,0 52,6 55,10	17,2	PBEND PBEND
TOOLS:			
AWL	WORKTABLE		
SETTINGTOOL	WORKTABLE		
CPUNCH	WORKTABLE		
SCREWDRIVER	WORKTABLE		
GLOVES SNIPES	WORKTABLE WORKTABLE		
BLACKPEN	WORKTABLE		
CCLAMPS	WORKTABLE		
SQUARE	WORKTABLE		
MARKINGGAUGE	WORKTABLE		
STEELTAPE	WORKTABLE		
DIVIDERS	WORKTABLE		
HANDFORMER	WORKTABLE WORKTABLE		
TEMPLATE CHISEL	WORKTABLE		
VISEGRIPS	WORKTABLE		
RIVET-HOLE-GUIDE	WORKTABLE		
HAMMER	WORKTABLE		
CAULKINGGUN	WORKTABLE		
BARCLAMP	WORKTABLE		
FILE 1-4DRILLBIT	WORKTABLE WORKTABLE		
1-4DRILLBIT	WORKTABLE		
5-32DRILLBIT	WORKTABLE		
SKETCH	WORKTABLE		
7.32DRILL-BIT	WORKTABLE		
5.16DRILL-BIT	WORKTABLE		
1.4TAP	WORKTABLE		
CHUCKKEY 9.16WRENCH	WORKTABLE WORKTABLE		
MASKING-TAFE	WORKTABLE		
SAW-BLADES	WORKTABLE		
15.16WRENCH	PANBRAKE		
FORMINGSTAKES	WORKBENCH		
BARCLAMP2	TOOLROOM		
DRILLBIT UTILITY-KNIFE	TOOLROOM TOOLROOM		
GRINDER	TOOLROOM		
SABER-SAW2	TOOLROOM		
SAW-BLADES2	TOOLROOM		
UNISHEAR2	TOOLROOM		
1-4PUNCH	PLASMA-ARC		
3-8PUNCH	PLASMA-ARC		
7-16PUNCH 1-2PUNCH	PLASMA-ARC PLASMA-ARC		
9-16PUNCH	PLASMA-ARC PLASMA-ARC		
5-8PUNCH	PLASMA-ARC		
11-16PUNCH	PLASHA-ARC		
3-4PUNCH	PLASMA-ARC		
CLAMP	PLASMA-ARC		

STRIPER DIE ALLENWRENCH	PLASMA-ARC PLASMA-ARC SEAMWELDER	
OBJECTS: SHEETMETAL DAMFERPARTS2 RIVETS:F SHEETMETALSCRAP BRUSH BOLTS GLUE FLANGES TAPE-CONTAINER COMPUTER-TAPE RUBBER DAMPERPARTS CART	WORKTABLE WORKTABLE WORKTABLE SCRAPBIN TOOLROOM TOOLROOM TOOLROOM FLANGEAREA PLASMA-ARC PLASMA-ARC GASKET-CUTTING-TABLE STORAGEBIN MARKOUT-STORAGE	FRAG
SHEETMETAL2:F S.M.CART GAUGED-SHEETMETAL PANEL-LIGHTS	MARKOUT-STORAGE SHEETMETAL-STORAGE SHEETMETAL-STORAGE SEAMWELDER	riad
EQUIPMENT: RIVETGUN DRILLMOTOR UNISHEAR SABER-SAW 14FTHYDROPRESSBRAKE-FOOTPEDAL TAACKWELDER DRILLPRESS-BUTTON PANBRAKE-LEVER CORNICEBRAKE-LEVER LEAFBRAKE-LEVER EASYEDGER HAND-ROLLER FOOTPEDAL PITTSBURGH-BUTTON LAPOUT-SWITCH TAPINGMOTOR ROLLER-BUTTON EDGER-SWITCH NIBBLER-BUTTON TOOLLOCK-SWITCH	WORKTABLE WORKTABLE WORKTABLE WORKTABLE 14FTHYDROPRESSBRAKE WELDOUT DRILLPRESS PANBRAKE CORNICEBRAKE LEAFBRAKE WORKBENCH WORKBENCH SMALLSHEAR PITTSBURGH LAPOUT TOOLROOM ROLLER EDGER NIBBLER PLASMA-ARC	1.5S 2 S 66 S 24 S 9.5 S 1 S 3.2 S 32 S 17 S 7 S 30 S 2 S 10 S 5 S 37 S 17 S 31 S
SPOTWELDER-FOOTPEDAL BARFOLDER-LEVER 14FT.SHEAR-FOOTPEDALL CARRIAGE-SPEED-SWITCH VOLTAGE-METER-SWITCH AMP-METER-SWITCH ON-OFF-SWITCH CARRIAGE-STOP WIRE-FEED-SWITCH CENTERING-DEVICE CLAMPING-DEVICE-FOOT-SWITCH CARRIAGE-TRACK	SPOTWELDER GASKET-CUTTING-TABLE 14FT.SHEAR SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER	2 S 5.8 S 1.4 S
SERUENCE-START-SWITCH SEAMWELDER-LATCH TORCH-UP-AND-DOWN-SWITCH	SEAMWELDER SEAMWELDER SEAMWELDER	1 M

FITTER WORKTABLE 28,20 B

From	To	Steps
WORKTABLE	14FTHYDROPRESSBRAKE	54
WORKTABLE	WELDOUT	29
WORKTABLE	DRILLPRESS	20
WORKTABLE	PANBRAKE	33
WORKTABLE	CORNICEBRAKE	32
WORKTABLE	LEAFBRAKE	41
WORKTABLE	WORKBENCH	38
WORKTABLE	SMALLSHEAR	35
WORKTABLE	PITTSBURGH	33
WORKTABLE	LAPOUT	31
WORKTABLE	SCRAPBIN	32
WORKTABLE	TOOLROOM	52
WORKTABLE	ROLLER	30
WORKTABLE	EDGER	36
WORKTABLE	NIBBLER	20
WORKTABLE	FLANGEAREA	90
WORKTABLE	PLASMA-ARC	73
WORKTABLE	HYDROPRESS	55
WORKTABLE	SPOTWELDER	29
WORKTABLE	GASKET-CUTTING-TABLE	54
WORKTABLE	BARFOLDER	38
WORKTABLE	14FT.SHEAR	85 22
WORKTABLE	PED.GRINDER	
WORKTABLE	STORAGEBIN	46
WORKTABLE	MARKOUT-STORAGE	87
WORKTABLE	MARKOUT	90
WORKTABLE	SHEETMETAL-STORAGE	90
WORKTABLE	SEAMWELDER	77
14FTHYDROPRESSBRAKE	WELDOUT	66
14FTHYDROPRESSBRAKE	DRILLPRESS	38
14FTHYDROPRESSBRAKE	PANBRAKE	44
14FTHYDROPRESSBRAKE	CORNICEBRAKE	40
14FTHYDROPRESSBRAKE	LEAFBRAKE	35
14FTHYDROPRESSBRAKE	WORKBENCH	36
14FTHYDROPRESSBRAKE	SMALLSHEAR	25
14FTHYDROPRESSBRAKE	PITTSBURGH	32
14FTHYDROPRESSBRAKE	LAPOUT	30
14FTHYDROPRESSBRAKE	SCRAPBIN	35
14FTHYDROPRESSBRAKE	TOOLROOM	19
14FTHYDROPRESSBRAKE	ROLLER	33
14FTHYDROPRESSBRAKE	EDGER	27 <b>22</b>
14FTHYDROPRESSBRAKE	NIBBLER	
14FTHYDROPRESSBRAKE	FLANGEAREA	91
14FTHYDROPRESSBRAKE	PLASMA-ARC	24
14FTHYDROPRESSBRAKE	HYDROPRESS	8
14FTHYDROPRESSBRAKE	SPOTWELDER	27
14FTHYDROPRESSBRAKE	GASKET-CUTTING-TABLE	66
14FTHYDROPRESSBRAKE	BARFOLDER	31
14FTHYDROPRESSBRAKE	14FT.SHEAR	34
14FTHYDROPRESSBRAKE	PED.GRINDER	34
14FTHYDROPRESSBRAKE	STORAGEBIN	58
14FTHYDROPRESSBRAKE	MARKOUT-STORAGE	36
14FTHYDROPRESSBRAKE	MARKOUT	40

14FTHYDROPRESSBRAKE	SHEETMETAL-STORAGE	45
14FTHYDROPRESSBRAKE	SEAMWELDER	20
WELDOUT	DRILLPRESS	28
WELDOUT	PANBRAKE	28
	CORNICEBRAKE	28
WELDOUT	LEAFBRAKE	
WELDOUT		47
WELDOUT	WORKBENCH	44
WELDOUT	SMALLSHEAR	49
WELDOUT	PITTSBURGH	38
WELDOUT	LAPOUT	45
WELDOUT	SCRAPBIN	47
WELDOUT	TOOLROOM	63
WELDOUT	ROLLER	35
WELDOUT	EDGER	42
WELDOUT	NIBBLER	37
WELDOUT	FLANGEAREA	83
WELDOUT	PLASMA-ARC	88
WELDOUT	HYDROPRESS	62
WELDOUT	SPOTWELDER	26
WELDOUT	GASKET-CUTTING-TABLE	46
WELDOUT	BARFOLDER	31
WELDOUT	14FT.SHEAR	90
WELDOUT	PED,GRINDER	34
WELDOUT	STORAGEBIN	37
WELDOUT	MARKOUT-STORAGE	91
WELDOUT	MARKOUT	90
WELDOUT	SHEETMETAL-STORAGE	90
WELDOUT	SEAMWELDER	92
DRILLPRESS	PANBRAKE	27
DRILLPRESS	CORNICEBRAKE	19
DRILLPRESS	LEAFBRAKE	22
DRILLPRESS	WORKBENCH	17
DRILLPRESS	SMALLSHEAR	19
DRILLPRESS	PITTSBURGH	10
DRILLPRESS	LAPOUT	11
DRILLPRESS	SCRAPBIN	28
DRILLPRESS	TOOLROOM	33
DRILLPRESS	ROLLER	9
DRILLPRESS	EDGER	13
DRILLPRESS	NIBBLER	4
DRILLPRESS	FLANGEAREA	75
DRILLPRESS	PLASMA-ARC	57
DRILLPRESS	HYDROPRESS	38
DRILLPRESS	SPOTWELDER	20
DRILLPRESS	GASKET-CUTTING-TABLE	41
DRILLPRESS	BARFOLDER	18
DRILLPRESS	14FT.SHEAR	69
DRILLPRESS	PED.GRINDER	13
DRILLPRESS	STORAGEBIN	29
DRILLPRESS	MARKOUT-STORAGE	70
DRILLPRESS	MARKOUT	74
DRILLPRESS	SHEETMETAL-STORAGE	90
DRILLPRESS	SEAMWELDER	61
PANBRAKE	CORNICEBRAKE	5
PANBRAKE	LEAFBRAKE	25
FANBRAKE	WORKBENCH	20
PANBRAKE	SMALLSHEAR	27
PANBRAKE	PITTSBURGH	18
PANBRAKE	LAPOUT	20
PANBRAKE	SCRAPBIN	36

	TOOL DOOK	4.0
PANBRAKE	TOOLROOM	40
PANBRAKE	ROLLER	19
PANBRAKE	EDGER	17
PARBRAKE	NIBBLER	13
PANBRAKE	FLANGEAREA	62
) PANBRAKE	PLASMA-ARC	61
PANBRAKE	HYDROPRESS	47
PANBRAKE	SPOTWELDER	30
PANBRAKE	GASKET-CUTTING-TABLE	24
PANBRAKE	BARFOLDER	24
PANBRAKE	14FT.SHEAR	72
PANBRAKE	PED.GRINDER	22
PANBRAKE	STORAGEBIN	15
PANBRAKE	MARKOUT-STORAGE	74
PANBRAKE	MARKOUT	78
PANBRAKE	SHEETMETAL-STORAGE	90
PANBRAKE	SEAMWELDER	65
	LEAFBRAKE	47
CORNICEBRAKE	WORKBENCH	16
CORNICEBRAKE	SMALLSHEAR	22
CORNICEBRAKE	PITTSBURGH	13
CORNICEBRAKE	LAPOUT	17
CORNICEBRAKE	SCRAPBIN	32
CORNICEBRAKE	<b></b>	36
CORNICEBRAKE	TOOLROOM	36 15
CORNICEBRAKE	ROLLER	
CORNICEBRAKE	EDGER	15
CORNICEBRAKE	NIBBLER	9
CORNICEBRAKE	FLANGEAREA	65
CORNICEBRAKE	PLASMA-ARC	58
CORNICEBRAKE	HYDROPRESS	41
CORNICEBRAKE	SPOTWELDER	26
CORNICEBRAKE	GASKET-CUTTING-TABLE	27
CORNICEBRAKE	BARFOLDER	21
CORNICEBRAKE	14FT.SHEAR	69
CORNICEBRAKE	PED.GRINDER	18
CORNICEBRAKE	STORAGEBIN	17
CORNICEBRAKE	MARKOUT-STORAGE	70
CORNICEBRAKE	MARKOUT .	75
CORNICEBRAKE	SHEETMETAL-STORAGE	83
CORNICEBRAKE	SEAMWELDER	62
- LEAFBRAKE	WORKBENCH	5
LEAFBRAKE	SMALLSHEAR	21
LEAFBRAKE	PITTSBURGH	18
LEAFBRAKE	LAPOUT	19
LEAFBRAKE	SCRAPBIN	34
LEAFBRAKE	TOOLROOM	29
LEAFBRAKE	ROLLER	20
<del>-</del> ·	EDGER	18
LEAFBRAKE	NIBBLER .	17
LEAFBRAKE		73
LEAFBRAKE	FLANGEAREA PLASMA-ARC	73 56
LEAFBRAKE	HYDROPRESS	33
LEAFBRAKE		32
LEAFBRAKE	SPOTWELDER	3≥ 43
LEAFBRAKE	GASKET-CUTTING-TABLE	43 8
LEAFBRAKE	BARFOLDER	
LEAFBRAKE	14FT.SHEAR	67
LEAFBRAKE	PED.GRINDER	21
LEAFBRAKE	STORAGEBIN	21
LEAFBRAKE	MARKOUT-STORAGE	86
LEAFBRAKE	MARKOUT	74

LEAFBRAKE	SHEETMETAL-STORAGE	76
LEAFBRAKE	SEAMWELDER	61
WORKBENCH	SMALLSHEAR	19
WORKBENCH	PITTSBURGH	12
WORKBENCH	LAPOUT	14
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SCRAPBIN	27
WORKBENCH		30
WORKBENCH	TOOLROOM	
WORKBENCH	ROLLER	18
WORKBENCH	EDGER	13
WORKBENCH	NIBBLER	13
WORKBENCH	FLANGEAREA	76
WORKBENCH	PLASMA-ARC	53
WORKBENCH	HYDROPRESS	35
WORKBENCH	SPOTWELDER	23
WORKBENCH	GASKET-CUTTING-TABLE	40
WORKBENCH	BARFOLDER	10
WORKBENCH	14FT.SHEAR	63
WORKBENCH	PED.GRINDER	17
WORKBENCH	STORAGEBIN	24
WORKBENCH	MARKOUT-STORAGE	65
WORKBENCH	MARKOUT STOKAGE	70
	SHEETMETAL-STORAGE	80
WORKBENCH		
WORKBENCH	SEAMWELDER	58
SMALLSHEAR	PITTSBURGH	12
SMALLSHEAR	LAPOUT	10
SMALLSHEAR	SCRAPBIN	16
SMALLSHEAR	TOOLROOM	19
SMALLSHEAR	ROLLER	6
SMALLSHEAR	EDGER	13
SMALLSHEAR	NIBBLER	16
SMALLSHEAR	FLANGEAREA	83
SMALLSHEAR	PLASMA-ARC	31
SMALLSHEAR	HYDROPRESS	24
SMALLSHEAR	SPOTWELDER	$\frac{-14}{14}$
SMALLSHEAR	GASKET-CUTTING-TABLE	58
SMALLSHEAR	BARFOLDER	14
SMALLSHEAR	14FT.SHEAR	42
SMALLSHEAR SMALLSHEAR	PEDIGRINDER	9
	STORAGEBIN	37
SMALLSHEAR		
SMALLSHEAR	MARKOUT-STORAGE	42
SMALLSHEAR	MARKOUT	47
SMALLSHEAR	SHEETMETAL-STORAGE	59
SMALLSHEAR	SEAMWELDER	31
PITTSBURGH	LAFOUT	3
PITTSBURGH	SCRAPBIN	18
PITTSBURGH	TOOLROOM	25
PITTSBURGH	ROLLER	8
PITTSBURGH	EDGER	8 5
PITTSBURGH	NIBBLER	
PITTSBURGH	FLANGEAREA	75
PITTSBURGH	PLASMA-ARC	53
PITTSBURGH	HYDROPRESS	16
PITTSBURGH	SPOTWELDER	$\frac{14}{14}$
PITTSBURGH	GASKET-CUTTING-TABLE	37
PITTSBURGH	BARFOLDER	12
PITTSBURGH	14FT.SHEAR	63
PITTSBURGH	PED.GRINDER	7
PITTSBURGH PITTSBURGH	STORAGEBIN	29
	MARKOUT-STORAGE	64
PITTSBURGH	MARKOUT-SIORAGE MARKOUT	70
PITTSBURGH	TUDARAM	70

DIMMODIDOII		II 0
PITTSBURGH	SHEETMETAL-STORAGE	73
PITTSBURGH	SEAMWELDER	56
LAPOUT	SCRAPBIN	$\begin{array}{c} 15 \\ 2 \end{array}$ 2
LAPOUT	TOOLROOM	
LAPOUT	ROLLER	5
LAPOUT	SHEETMETAL-STORAGE SEAMWELDER SCRAPBIN TOOLROOM ROLLER EDGER NIBBLER FLANGEAREA PLASMA-ARC HYDROPRESS SPOTWELDER GASKET-CUTTING-TABLE BARFOLDER	8
LAPOUT	NIBBLER	8
LAPOUT	FLANGEAREA	78
LAPOUT	PLASMA-ARC	46
LAPOUT	HYDROPRESS	29
LAPOUT	SPOTWELDER	12
LAPOUT	GASKET-CUTTING-TABLE	42
LAPOUT	BARFOLDER	11
LAPOUT	14FT SHEAR	57
LAPOUT	DED CRINDER	4
LAPOUT	CTODACERIN	25
LAPOUT	MYDRUITH GHUDYGE	58
LAPOUT	MADKOUT - STORAGE	56 62
		72
LAPOUT LAPOUT	CEVWMET DED	50
		32
SCRAPBIN	DOLLED	32 12
SCRAPBIN	ROLLER	
SCRAPBIN	EDGER	23
SCRAPBIN	NIBBLER	63
SCRAPBIN	FLANGEAREA	90
SCRAPBIN	PLASMA-ARC	24
SCRAPBIN	HYDROPRESS	21
SCRAPBIN	SPOTWELDER	6
SCRAPBIN	GASKET-CUTTING-TABLE	90
SCRAPBIN	BARFOLDER	25
SCRAPBIN	GASKET-CUTTING-TABLE BARFOLDER 14FT.SHEAR PED.GRINDER STORAGEBIN MARKOUT-STORAGE MARKOUT SHEETMETAL-STORAGE SEAMWELDER TOOLROOM ROLLER EDGER NIBBLER FLANGEAREA PLASMA-ARC HYDROPRESS SPOTWELDER GASKET-CUTTING-TABLE BARFOLDER 14FT.SHEAR PED.GRINDER STORAGEBIN MARKOUT-STORAGE MARKOUT SHEETMETAL STORAGE	1}i3
SCRAPBIN	PED.GRINDER	15
SCRAPBIN	STORAGEBIN	46
SCRAPBIN	MARKOUT-STORAGE	18
SCRAPBIN	MARKOUT	19
SCRAPBIN	SHEETMETAL-STORAGE	10
SCRAPBIN	SEAMWELDER	26
TOOLROOM	ROLLER	28
TOOLROOM	EDGER	25
TOOLROOM	NIBBLER	27
TOOLROOM	FLANGEAREA	90
TOOLROOM	PLASMA-ARC	42
TOOLROOM	HYDROPRESS	21
TOOLROOM	SPOTWELDER	31
TOOLROOM	GASKET-CUTTING-TABLE	57
TOOLROOM	BARFOLDER	22
TOOLROOM	14FT.SHEAR	51
TOOLROOM	PED.GRINDER	25
TOOLROOM	STORAGEBIN	48
TOOLROOM	MARKOUT-STORAGE	50
TOOLROOM	MARKOUT - STORAGE MARKOUT	54
TOOLROOM	SHEETMETAL-STORAGE	62
TOOLROOM	SEAMWELDER	4 3 12
ROLLER	EDGER	_
ROLLER	NIBBLER	$\{ _{01} 11$
ROLLER	FLANGEAREA	81
ROLLER	PLASMA-ARC	50
ROLLER	HYDROPRESS	33
ROLLER	SPOTWELDER	10
ROLLER	GASKET-CUTTING-TABLE	46

ROLLER "%j\$%euEE\*J '\$\$\$\$\$HHHSP\*)\*

### 1I%!Q5Q15=I:%j&L\*%=1I%V.jZ

	Z5\$dHH	50	
14FT.SHEAR	PED.GRINI	DER	61
14FT.SHEAR	STORAGEBI	ĽΝ	84
14FT.SHEAR	MARKOUT-S	STORAGE	14
14FT.SHEAR	MARKOUT		14
14FT.SHEAR	SHEETMETA	AL-STORAGE	17
14FT.SHEAR	SEAMWELDE	₹R	45
PED.GRINDER	STORAGEBI	IN	32
PED.GRINDER	MARKOUT-S	STORAGE	63
PED.GRINDER	MARKOUT		66
PED.GRINDER	SHEETMETA	AL-STORAGE	7
PED.GRINDER	SEAMWELDE	IR	54
STORAGEBIN	MARKOUT-S	STORAGE	86
STORAGEBIN	MARKOUT		90
STORAGEBIN	SHEETMETA	AL-STORAGE	90
STORAGEBIN	SEAMWELDE	₹R	78
MARKOUT-STORAGE	MARKOUT		5
MARKOUT-STORAGE	SHEETMETA	AL-STORAGE	20
MARKOUT-STORAGE	SEAMWELDE	€R	21
MARKOUT	SHEETMETA	AL-STORAGE	20
MARKOUT	SEAMWELDE	₹R	25
SHEETMETAL-STORAGE	SEAMWELDE	<b>E</b> R	30

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

S%Invalid command.

 $\mbox{\bf Type}$  D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ? L

FIT W 1 4 (39,101)	? N		
! WELDOUT ! ! WORKTABLE (X)	! SPOTW	VELDER !	! SCRAPBIN!
! FLANGEAREA! ! DRILLPRESS ! !	PED.GRIND	ER ! !14F	TT.SHEAR
!GASKET-CUTTING-TABLE!! ROLLER!	!! LAPOUT!	! HYDROPRESS !	
! PANBRAKE !! NIBBLER!! PIT	TTSBURGH!!	SMALLSHEAR ! S	SEAMWELDER !
! CORNICEBRAKE ! ! !			METAL-STORAGE!
! LEAFBRAKE !! BARFOLDER ! -	14FTHYDROPR 	ESSBRAKE! PLASMA-	ARC! 
Name	Location	1 – –	Body/Frag/PT
WORKPLACES: WORKTABLE 14FTHYDROPRESSBRAKE WELDOUT DRILLPRESS PANBRAKE CORNICEBRAKE	15,19 30,3 0,19 15,16 5,10 10,7	19,2 10,2 13,2 11,2 15,2	PBEND PBEND
LEAFBRAKE WORKBENCH SMALLSHEAR PITTSBURGH LAPOUT	4,1 18,4 40,10 27,10 32,13	12,2 11,2 10,2 12,2 8,2	PBEND
SCRAPBIN TOOLROOM ROLLER EDGER NIBBLER FLANGEAREA PLASMA-ARC HYDROPRESS SPOTWELDER GASKET-CUTTING-TABLE BARFOLDER 14FT.SHEAR PED.GRINDER STORAGEBIN MARKOUT-STORAGE	61,19 30,0 23,13 30,7 17,10 0,16 50,3 42,13 35,19 0,13 17,1 55,16 30,16 0,4 41,0	10,2 11,2 8,2 7,2 9,2 12,2 12,2 15,2 13,2 21,2 12,2 10,12 15,2 10,12	BEND

MARKOUT	62,0	9,2	PBEND
			DREND
	33,13		I DHIVD
MARKOUT SHEETMETAL-STORAGE SEAMWELDER  TOOLS: AWL SETTINGTOOL CPUNCH SCREWDRIVER GLOVES SNIPES BLACKPEN CCLAMPS SQUARE MARKINGGAUGE STEELTAPE DIVIDERS HANDFORMER TEMPLATE CHISEL VISEGRIPS RIVET-HOLE-GUIDE HAMMER CAULKINGGUN BARCLAMP FILE I-4DRILLBIT I-2DRILLBIT 5-32DRILLBIT 5-32DRILLBIT 5-32DRILLBIT 5.16DRILL-BIT 1.4TAP CHUCKKEY 9.16WRENCH MASKING-TAPE SAW-BLADES 15.16WRENCH FORMINGSTAKES BARCLAMP2 DRILLBIT UTILITY-KNIFE GRINDER SABER-SAW2 SAW-BLADES2 UNISHEAR2	62,0 52,6 55,10  WORKTABLE	9,2 19,2 15,2	PBEND PBEND
SAW-BLADES2	TOOLROOM		
1-4PUNCH	PLASMA-ARC		
3-8PUNCH 7-16PUNCH	PLASMA-ARC PLASMA-ARC		
1-2PUNCH	PLASMA-ARC		
9-16PUNCH 5-8PUNCH	PLASMA-ARC PLASMA-ARC		
ll-16PUNCH	PLASMA-ARC		
3-4PUNCH CLAMP	PLASMA-ARC PLASMA-ARC		
STRIPER	PLASMA-ARC		
DIE ALLENWRENCH	PLASMA-ARC SEAMWELDER		
	Идинапири		

SHEETMETAL DAMPERPARTS2 RIVETS: F SHEETMETALSCRAP BRUSH BOLTS BLUE FLANGES TAPE-CONTAINER COMPUTER-TAPE RUBBER DAMPERPARTS CART SHEETMETAL2: F S.M.CART GAUGED-SHEETMETAL PANEL-LIGHTS	WORKTABLE WORKTABLE WORKTABLE SCRAPBIN TOOLROOM TOOLROOM TOOLROOM FLANGEAREA PLASMA-ARC PLASMA-ARC GASKET-CUTTING-TABLE STORAGEBIN MARKOUT-STORAGE MARKOUT-STORAGE SHEETMETAL-STORAGE SHEETMETAL-STORAGE SEAMWELDER	FRAG FRAG
EQUIPMENT: RIVETGUN DRILLMOTOR UNISHEAR SABER-SAW	WORKTABLE WORKTABLE WORKTABLE WORKTABLE	1.5 S 2 S 66 S 24 S
14FTHYDROPRESSBRAKE-FOOTFEDAL TAACKWELDER DRILLPRESS-BUTTON PANBRAKE-LEVER	WELDOUT DRILLPRESS PANBRAKE	9,5 S 1 S 3.2 S 32 S
CORNICEBRAKE-LEVER LEAFBRAKE-LEVER EASYEDGER HAND-ROLLER	CORNICEBRAKE LEAFBRAKE WORKBENCH WORKBENCH	17 S 7 S 30 S
FOOTPEDAL PITTSBURGH-BUTTON LAPOUT-SWITCH TAPINGMOTOR ROLLER-BUTTON	SMALLSHEAR PITTSBURGH LAPOUT TOOLROOM ROLLER	2 S 10 S 5 S
EDGER-SWITCH NIBBLER-BUTTON TOOLLOCK-SWITCH SPOTWELDER-FOOTPEDAL	EDGER NIBBLER PLASMA-ARC SPOTWELDER	17 S 31 S 2 S
BARFOLDER-LEVER 14FT.SHEAR-FOOTPE"rDALL CARRIAGE-SPEED-SWITCH VOLTAGE-METER-SWITCH AMP-METER-SWITCH	GASKET-CUTTING-TABLE 14FT.SHEAR SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER	5.8 S 1.4 S
ON-OFF-SWITCH CARRIAGE-STOP WIRE-FEED-SWITCH CENTERING-DEVICE CLAMPING-DEVICE-FOOT-SWITCH CARRIAGE-TRACK	SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER SEAMWELDER	
SEQUENCE-START-SWITCH SEAMWELDER-LATCH TORCH-UP-AND-DOWN-SWITCH	SEAMWELDER SEAMWELDER SEAMWELDER	1 M
OPERATORS: FITTER	WORKTABLE	28,20 B

WORKTABLE	14FTHYDROPRESSBRAKE	54
WORKTABLE	WELDOUT	29
WORKTABLE	DRILLPRESS	20
WORKTABLE	PANBRAKE	33
WORKTABLE	CORNICEBRAKE	32
WORKTABLE	LEAFBRAKE	41
WORKTABLE	WORKBENCH	38
WORKTABLE	SMALLSHEAR	35
WORKTABLE	PITTSBURGH	33
WORKTABLE	LAPOUT	31
		32
WORKTABLE	SCRAPBIN	
WORKTABLE	TOOLROOM	52
WORKTABLE	ROLLER	30
WORKTABLE	EDGER	36
WORKTABLE	NIBBLER	20
WORKTABLE	FLANGEAREA	90
WORKTABLE	PLASMA-ARC	73
WORKTABLE	HYDROPRESS	55
WORKTABLE	SPOTWELDER	29
WORKTABLE	GASKET-CUTTING-TABLE	54
WORKTABLE	BARFOLDER	38
WORKTABLE	14FT.SHEAR	85
WORKTABLE	PED.GRINDER	22
WORKTABLE	STORAGEBIN	46
WORKTABLE	MARKOUT-STORAGE	87
WORKTABLE	MARKOUT	90
WORKTABLE	SHEETMETAL-STORAGE	90
WORKTABLE	SEAMWELDER	77
14FTHYDROPRESSBRAKE	WELDOUT	66
14FTHYDROPRESSBRAKE	DRILLPRESS	38
14FTHYDROPRESSBRAKE	PANBRAKE	44
	CORNICEBRAKE	40
14FTHYDROPRESSBRAKE		
14FTHYDROPRESSBRAKE	LEAFBRAKE	35
14FTHYDROPRESSBRAKE	WORKBENCH	36
14FTHYDROPRESSBRAKE	SMALLSHEAR	25
14FTHYDROPRESSBRAKE	PITTSBURGH	32
14FTHYDROPRESSBRAKE	LAPOUT	30
14FTHYDROPRESSBRAKE	SCRAPBIN	35
14FTHYDROPRESSBRAKE	TOOLROOM	19
14FTHYDROPRESSBRAKE	ROLLER	33
14FTHYDROPRESSBRAKE	EDGER	27
14FTHYDROPRESSBRAKE	NIBBLER	$\overline{22}$
14FTHYDROPRESSBRAKE	FLANGEAREA	91
14FTHYDROPRESSBRAKE	PLASMA-ARC	24
14FTHYDROPRESSBRAKE	HYDROPRESS	8
14FTHYDROPRESSBRAKE	SPOTWELDER	27
14FTHYDROPRESSBRAKE	GASKET-CUTTING-TABLE	66
14FTHYDROPRESSBRAKE	BARFOLDER	31
14FTHYDROPRESSBRAKE	14FT.SHEAR	34
14FTHYDROPRESSBRAKE	PED.GRINDER	34
14FTHYDROPRESSBRAKE	STORAGEBIN	58
14FTHYDROPRESSBRAKE	MARKOUT-STORAGE	36
14FTHYDROPRESSBRAKE	MARKOUT	40
14FTHYDROPRESSBRAKE	SHEETMETAL-STORAGE	45
14FTHYDROPRESSBRAKE	SEAMWELDER	20
WELDOUT	DRILLPRESS	28
WELDOUT	PANBRAKE	28
WELDOUT	CORNICEBRAKE	28

	THANDAKH	4 7
WELDOUT	LEAFBRAKE	47
WELDOUT	WORKBENCH	44
WELDOUT	SMALLSHEAR	49
WELDOUT	PITTSBURGH	38
WELDOUT	LAPOUT	45
WELDOUT	SCRAPBIN O<	47
WELDOUT	TOOLROOM	63
WELDOUT	ROLLER	35
WELDOUT	EDGER	42
WELDOUT	NIBBLER	37
WELDOUT	FLANGEAREA	83
WELDOUT	PLASMA-ARC	88
WELDOUT	HYDROPRESS	62
WELDOUT	SPOTWELDER	26
WELDOUT	GASKET-CUTTING-TABLE	46
WELDOUT	BARFOLDER	31
WELDOUT	14FT.SHEAR	90
WELDOUT	PED.GRINDER	34
WELDOUT	STORAGEBIN	37
WELDOUT	MARKOUT-STORAGE	91
WELDOUT	MARKOUT	90
WELDOUT	SHEETMETAL-STORAGE	90
WELDOUT	SEAMWELDER	92
DRILLPRESS	PANBRAKE	27
DRILLPRESS	CORNICEBRAKE	19
DRILLPRESS	LEAFBRAKE	22
DRILLPRESS	WORKBENCH	17
DRILLPRESS	SMALLSHEAR	19
DRILLPRESS	PITTSBURGH	10
DRILLPRESS	LAPOUT	11
DRILLPRESS	SCRAPBIN	28
DRILLPRESS	TOOLROOM	33
DRILLPRESS	ROLLER	9
DRILLPRESS	EDGER	13
DRILLPRESS	NIBBLER	4
DRILLPRESS	FLANGEAREA	75
DRILLPRESS	PLASMA-ARC	57
DRILLPRESS	HYDROPRESS	38
DRILLPRESS	SPOTWELDER	20
DRILLPRESS	GASKET-CUTTING-TABLE	41
DRILLPRESS	BARFOLDER	18
DRILLPRESS	14FT.SHEAR	69
DRILLPRESS	FED.GRINDER	13
DRILLPRESS	STORAGEBIN	29
DRILLPRESS	MARKOUT-STORAGE	70
DRILLPRESS	MARKOUT	74
DRILLPRESS	SHEETMETAL-STORAGE	90
DRILLPRESS	SEAMWELDER	61
PANBRAKE	CORNICEBRAKE	5
PANBRAKE	LEAFBRAKE	25
PANBRAKE	WORKBENCH	20
PANBRAKE	SMALLSHEAR	27
PANBRAKE	PITTSBURGH	18
PANBRAKE	LAPOUT	20
PANBRAKE	SCRAPBIN	36
PANBRAKE	TOOLROOM	40
PANBRAKE	ROLLER	19
PANBRAKE	EDGER	17
PANBRAKE	NIBBLER	13
PANBRAKE	FLANGEAREA	62

ĺ

Ī

PANBRAKE	PLASMA-ARC	61
PANBRAKE	HYDROPRESS	47
PANBRAKE	SPOTWELDER	30
PANBRAKE	GASKET-CUTTING-TABLE	24
PANBRAKE	BARFOLDER	24
PANBRAKE	14FT.SHEAR	72 22
PANBRAKE	PED.GRINDER	22
PANBRAKE	STORAGEBIN	15
PANBRAKE	MARKOUT-STORAGE	74
PANBRAKE	MARKOUT	78
PANBRAKE	SHEETMETAL-STORAGE	90
PANBRAKE	SEAMWELDER	65
CORNICEBRAKE	LEAFBRAKE	47
CORNICEBRAKE	WORKBENCH	16
CORNICEBRAKE	SMALLSHEAR	22
CORNICEBRAKE	PITTSBURGH	13
CORNICEBRAKE	LAPOUT	13 17
CORNICEBRAKE	SCRAPBIN	1 /
		2
CORNICEBRAKE	TOOLROOM	
CORNICEBRAKE	ROLLER	15
CORNICEBRAKE	EDGER	15
CORNICEBRAKE	NIBBLER	9
CORNICEBRAKE	FLANGEAREA	65
CORNICEBRAKE	PLASMA-ARC	58
CORNICEBRAKE	HYDROPRESS	41
CORNICEBRAKE	SPOTWELDER	26
CORNICEBRAKE-	GASKET-CUTTING-TABLE	27
CORNICEBRAKE	BARFOLDER	21
CORNICEBRAKE	14FT.SHEAR	69
CORNICEBRAKE	PED.GRINDER	18
CORNICEBRAKE	STORAGEBIN	17
CORNICEBRAKE	MARKOUT-STORAGE	70
CORNICEBRAKE	MARKOUT	75
CORNICEBRAKE	SHEETMETAL-STORAGE	86
CORNICEBRAKE	SEAMWELDER	62
LEAFBRAKE	WORKBENCH	5
LEAFBRAKE	SMALLSHEAR	21
LEAFBRAKE	PITTSBURGH	18
LEAFBRAKE	LAPOUT	19
		-
LEAFBRAKE	SCRAPBIN	34
LEAFBRAKE	TOOLROOM	29
LEAFBRAKE	ROLLER	20
LEAFBRAKE	EDGER	18
LEAFBRAKE	NIBBLER	17
LEAFBRAKE	FLANGEAREA	73
LEAFBRAKE	PLASMA-ARC	56
LEAFBRAKE	HYDROPRESS	33
LEAFBRAKE	SPOTWELDER	32
LEAFBRAKE	GASKET-CUTTING-TABLE	43
LEAFBRAKE	BARFOLDER	8
LEAFBRAKE	14FT.SHEAR	67
LEAFBRAKE	PED.GRINDER	21
LEAFBRAKE	STORAGEBIN	21
LEAFBRAKE	MARKOUT-STORAGE	68
LEAFBRAKE	MARKOUT	74
LEAFBRAKE	SHEETMETAL-STORAGE {	76
LEAFBRAKE	SEAMWELDER	61
WORKBENCH	SMALLSHEAR	19
WORKBENCH	PITTSBURGH	12
WORKBENCH WORKBENCH		14
MOVIOUNCU	LAPOUT	14

**\*** 

WORKBENCH	SCRAPBIN	27
WORKBENCH	TOOLROOM	30
WORKBENCH	ROLLER	18
WORKBENCH	EDGER	13
WORKBENCH	NIBBLER	13
WORKBENCH WORKBENCH	FLANGEAREA	76
WORKBENCH	PLASMA-ARC	53
WORKBENCH	HYDROPRESS	35
WORKBENCH	SPOTWELDER	23
WORKBENCH	GASKET-CUTTING-TABLE	40
WORKBENCH	BARFOLDER	10
WORKBENCH	14FT.SHEAR	63
WORKBENCH	PED.GRINDER	17
WORKBENCH	STORAGEBIN	24
WORKBENCH	MARKOUT-STORAGE	65
WORKBENCH	MARKOUT	70
WORKBENCH	SHEETMETAL-STORAGE	80
WORKBENCH	SEAMWELDER	58
SMALLSHEAR	PITTSBURGH	12
SMALLSHEAR	LAPOUT	10
SMALLSHEAR	SCRAPBIN	16
SMALLSHEAR	TOOLROOM	19
SMALLSHEAR	ROLLER	6
SMALLSHEAR	EDGER	13
SMALLSHEAR	NIBBLER	16
SMALLSHEAR	FLANGEAREA	83
SMALLSHEAR	PLASMA-ARC	31
SMALLSHEAR	HYDROPRESS	24
SMALLSHEAR	SPOTWELDER GASKET-CUTTING-TABLE	14 58
SMALLSHEAR	BARFOLDER	
SMALLSHEAR	14FT.SHEAR	14 42
SMALLSHEAR	PED.GRINDER	9
SMALLSHEAR	STORAGEBIN	37
SMALLSHEAR	MARKOUT-STORAGE	42
SMALLSHEAR	MARKOUT -SIORAGE MARKOUT	42 47
SMALLSHEAR	SHEETMETAL-STORAGE	59
SMALLSHEAR SMALLSHEAR	SEAMWELDER	31
PITTSBURGH	I.APOUT	3
PITISBURGH PITTSRURGH	SCRAPBIN	18
PITTSBURGH	TOOLROOM	25
PITTSBURGH	ROLLER	8
PITTSBURGH	EDGER	8
PITTSBURGH	NIBBLER	5
PITTSBURGH	FLANGEAREA	75
PITTSBURGH	PLASMA-ARC	53
PITTSBURGH	HYDROPRESS	16
PITTSBURGH	SPOTWELDER	$\frac{14}{14}$
PITTSBURGH	GASKET-CUTTING-TABLE	37
PITTSBURGH	BARFOLDER	12
PITTSBURGH	14FT.SHEAR	63
PITTSBURGH	PED.GRINDER	7
PITTSBURGH	STORAGEBIN	29
PITTSBURGH	MARKOUT-STORAGE	64
PITTSBURGH	MARKOUT	70
PITTSBURGH	SHEETMETAL-STORAGE	73
PITTSBURGH	SEAMWELDER	56
LAPOUT	SCRAFBIN	15
LAPOUT	TOOLROOM	22
LAPOUT	ROLLER	5

LAPOUT	EDGER	8
LAPOUT	NIBBLER	8
LAPOUT	FLANGEAREA	78
LAPOUT	PLASMA-ARC	46
LAPOUT	HYDROPRESS	29
LAPOUT	SPOTWELDER	12
LAPOUT	GASKET-CUTTING-TABLE	
		42
LAPOUT	BARFOLDER	11
LAPOUT	14FT.SHEAR	57
LAPOUT	PED.GRINDER	4
LAPOUT	STORAGEBIN	25
LAPOUT	MARKOUT-STORAGE	58
LAPOUT	MARKOUT	62
LAPOUT	SHEETHETAL-STORAGE	72
LAPOUT	SEAMWELDER	50
SCRAPBIN	TOOLROOM	32
SCRAPBIN	ROLLER	12
SCRAPBIN	EDGER	23
SCRAPBIN		23 63
	NIBBLER	
SCRAPBIN	FLANGEAREA	90
SCRAPBIN	PLASMA-ARC	24
SCRAPBIN	HYDROPRESS	21
SCRAPBIN	SPOTWELDER	6
SCRAPBIN	GASKET-CUTTING-TABLE	90
SCRAPBIN	BARFOLDER	25
SCRAPBIN	14FT.SHEAR	13
SCRAPBIN	PED.GRINDER	15
SCRAPBIN	STORAGEBIN	46
SCRAPBIN	MARKOUT-STORAGE	18
SCRAPBIN	MARKOUT	19
SCRAPBIN	SHEETMETAL-STORAGE	10
		-
SCRAPBIN	SEAMWELDER	26
TOOLROOM	ROLLER	28
TOOLROOM	EDGER	25
TOOLROOM	NIBBLER	27
TOOLROOM	FLANGEAREA	90
TOOLROOM	PLASMA-ARC	42
TOOLROOM	HYDROPRESS	21
TOOLROOM	SPOTWELDER	31
TOOLROOM	GASKET-CUTTING-TABLE	57
TOOLROOM	BARFOLDER	22
TOOLROOM	14FT.SHEAR	51
TOOLROOM	PED.GRINDER	25
TOOLROOM		48
	STORAGEBIN	
TOOLROOM	MARKOUT-STORAGE	50
TOOLROOM	MARKOUT	54
TOOLROOM	SHEETMETAL-STORAGE	62
TOOLROOM	SEAMWELDER	43 12
ROLLER	EDGER	12
ROLLER	NIBBLER	11
ROLLER	FLANGEAREA	81
ROLLER	PLASMA-ARC	50
ROLLER	HYDROPRESS	33
ROLLER	SPOTWELDER	10
ROLLER	GASKET-CUTTING-TABLE	46
ROLLER	BARFOLDER	15
ROLLER	14FT.SHEAR	60
ROLLER		
-	PED.GRINDER	5
ROLLER	STORAGEBIN	35
ROLLER	MARKOUT-STORAGE	63

DOI I ED	MARKOUT	66
ROLLER	SHEETMETAL-STORAGE	75
ROLLER	SEAMWELDER	53
ROLLER	NIBBLER	9
EDGER		
EDGER	FLANGEAREA	75
EDGER	PLASMA-ARC	48
EDGER	HYDROPRESS	29
EDGER	SPOTWELDER	19
EDGER	GASKET-CUTTING-TABLE	37
EDGER	BARFOLDER	9
EDGER	14FT.SHEAR	59
EDGER	PED.GRINDER	5
EDGER	STORAGEBIN MARKOUT-STORAGE	26
EDGER		60
EDGER	MARKOUT	66
EDGER	SHEETMETAL-STORAGE	73
EDGER	SEAMWELDER	52
NIBBLER	FLANGEAREA	63
NIBBLER	PLASMA-ARC	55
NIBBLER	HYDROPRESS	33
NIBBLER	SPOTWELDER	17
NIBBLER	GASKET-CUTTING-TABLE	39
NIBBLER	BARFOLDER	1 5
NIBBLER	14FT.SHEAR	66
NIBBLER	PED.GRINDER	10
NIBBLER	STORAGEBIN	23
NIBBLER NIBBLER	MARKOUT-STORAGE	68
NIBBLER	MARKOUT STORAGE	73
	SHEETMETAL-STORAGE	83
NIBBLER		
NIBBLER	SEAMWELDER	58
FLANGEAREA	PLASMA-ARC	90
FLANGEAREA	HYDROPRESS	85
FLANGEAREA	SPOTWELDER	82
FLANGEAREA	GASKET-CUTTING-TAELE	30
FLANGEAREA	BARFOLDER	74
FLANGEAREA	14FT.SHEAR	90
FLANGEAREA	PED.GRINDER	73
FLANGEAREA	STORAGEBIN	54
FLANGEAREA	MARKOUT-STORAGE	90
FLANGEAREA	MARKOUT	90
FLANGEAREA	SHEETMETAL-STORAGE	90
FLANGEAREA	SEAMWELDER	90
PLASMA-ARC	HYDROPRESS	21
PLASMA-ARC	SPOTWELDER	41
PLASMA-ARC	GASKET-CUTTING-TABLE	82
PLASMA-ARC	BARFOLDER	46
PLASMA-ARC PLASMA-ARC	14FT.SHEAR	18
PLASMA-ARC PLASMA-ARC	PED.GRINDER	50
	STORAGEBIN	32
PLASMA-ARC PLASMA-ARC	MARKOUT-STORAGE	10
PLASMA-ARC	MARKOUT	14
PLASMA-ARC	SHEETMETAL-STORAGE	35
PLASMA-ARC PLASMA-ARC	SEAMWELDER	11
	SPOTWELDER	26
HYDROPRESS	GASKET-CUTTING-TABLE	64
HYDROPRESS		
HYDROPRESS	BARFOLDER	31
HYDROPRESS	14FT.SHEAR	32
HYDROPRESS	PED.GRINDER	33
HYDRDPRESS	STORAGEBIN	53
HYDROPRESS	MARKOUT-STORAGE	33

HYDROPRESS	MARKOUT	8
HYDROPRESS	SHEETMETAL-STORAGE	42
HYDROPRESS	SEAMWELDER	24
SPOTWELDER	GASKET-CUTTING-TABLE	54
SPOTWELDER	BARFOLDER	22
SPOTWELDER	14FT.SHEAR	52
SPOTWELDER	PED.GRINDER	9
SPOTWELDER	STORAGEBIN	38
SPOTWELDER	MARKOUT-STORAGE	52
SPOTWELDER	MARKOUT	58
SPOTWELDER	SHEETMETAL-STORAGE	68
SPOTWELDER	SEAMWELDER	45
GASKET-CUTTING-TABLE	BARFOLDER	42
GASKET-CUTTING-TABLE	14FT.SHEAR	90
GASKET-CUTTING-TABLE	PED.GRINDER	46
GASKET-CUTTING-TABLE	STORAGEBIN	15
GASKET-CUTTING-TABLE	MARKOUT-STORAGE	90
GASKET-CUTTING-TABLE	MARKOUT	90
GASKET-CUTTING-TABLE	SHEETMETAL-STORAGE	90
GASKET-CUTTING-TABLE	SEAMWELDER	86
BARFOLDER	14FT.SHEAR	57
BARFOLDER	PED.GRINDER	16
BARFOLDER	STORAGEBIN	32
BARFOLDER	MARKOUT-STORAGE	58
BARFOLDER	MARKOUT	63
BARFOLDER	SHEETMETAL-STORAGE	73
BARFOLDER	SEAMWELDER	50
14FT.SHEAR	PED.GRINDER	61
14FT.SHEAR	STORAGEBIN	84
14FT.SHEAR	MARKOUT-STORAGE	14
14FT.SHEAR	MARKOUT	14
14FT.SHEAR	SHEETMETAL-STORAGE	17
14FT.SHEAR	SEAMWELDER	45
PED.GRINDER	STORAGEBIN	32
PED.GRINDER	MARKOUT-STORAGE	63
PED.GRINDER	MARKOUT	66
PED.GRINDER	SHEETMETAL-STORAGE	7
PED.GRINDER	SEAMWELDER	54
STORAGEBIN	MARKOUT-STORAGE	86
STORAGEBIN	MARKOUT	90
STORAGEBIN	SHEETMETAL-STORAGE	90
STORAGEBIN	SEAMWELDER	78
MARKOUT-STORAGE	MARKOUT	5
MARKOUT-STORAGE	SHEETMETAL-STORAGE	20
MARKOUT-STORAGE	SEAMWELDER	21
MARKOUT	SHEETMETAL-STORAGE	20
MARKOUT	SEAMWELDER	25
SHEETMETAL-STORAGE	SEAMWELDER	30

Type D, EM, CT, EW, EX, L, LD, LS, M, T, W <or H for help> ?

## MOST directory for ( 39, 1)

File	Description  DEBURR ACCESS HOLE AND COVER CUT GASKET FOR ACCESS COVER	Protect-	Createc
Name Ext		ion <33>	0.7 0
	DEBURR ACCESS HOLE AND COVER	<33>	27-May-8
ACOVER.M25	CUT GASKET FOR ACCESS COVER	< 33 ×	27-May-8
ACOVER.M24	CUT GASKET FOR ACCESS COVER DRILL AND TAP SHEETMETAL FOR ACCESS COVER SPOTWELD SHEETMETAL FOR ACCESS COVER SHEAR ACCESS HOLE FOR ACCESS COVER SHEAR SHEETMETAL FOR ACCESS COVER MARK OUT ACCESS COVER AND BACK UP PLATES BEBURR ACCESS HOLE AND ACCESS COVER CUT GASKET FOR ACCESS COVER	< 33>	27-May-8 27-May-8
ACOVER.M23	CALVD VACAGO AULA EUD VACAGO GUMED	< 33>	27-May-6 27-May-8
ACOVER M21	SHEAR SHEETMETAL FOR ACCESS COVER	< 33>	27-May-8 27-May-8
ACOVER M20	MARK OUT ACCESS COVER AND BACK UP PLATES	< 33>	27-May-8
ACOVER.MO7	BEBURR ACCESS HOLE AND ACCESS COVER	< 33>	27-May-8
ACOVER.MO6	CUT GASKET FOR ACCESS COVER	< 33>	27-May-8
ACOVER.MO5	DRILL AND TAP SHEETMETAL FOR ACCESS COVER	< 33>	27-May-8
ACOVER.M04	SPOTWELD SHEETMETAL FOR ACCESS COVER	< 33>	27-May-8
ACOVER.MO3	SHEAR ACCESS HOLE FOR ACCESS COVER	< 33>	27-May-8
ACOVER.MO2	SHEAR SHEETMETAL FOR ACCESS COVER	< 33>	26-May-8
ACOVER.MO1	MARK OUT ACCESS COVER AND BACK-UP PLATES	< 33>	26-May-8
BARB .EOl	MARK OUT TRANSFORMER	< 33>	26-Jul-8
BDAMP . MOS	ASSEMBLE BALANCE DAMPER	< 33>	23-Jun-8
BDAMP .MO4	DRILL SHEETMETAL FOR BALANCE DAMPER	< 3 3 >	22-Jun-8
BDAMP . MOS	B BEND SHEETMETAL FOR BALANCE DAMPER	< 3 3 >	22-Jun-8
BDAMP . MOZ	2 SHEAR SHEETMETAL FOR BALANCE DAMPER	< 33>	22-Jun-8
BUAMP . MO.	CUT GASKET FOR ACCESS COVER DRILL AND TAP SHEETMETAL FOR ACCESS COVER SPOTWELD SHEETMETAL FOR ACCESS COVER SHEAR ACCESS HOLE FOR ACCESS COVER SHEAR SHEETMETAL FOR ACCESS COVER MARK OUT ACCESS COVER AND BACK-UP PLATES MARK OUT TRANSFORMER ASSEMBLE BALANCE DAMPER DRILL SHEETMETAL FOR BALANCE DAMPER SHEAR SHEETMETAL FOR BALANCE DAMPER SHEAR SHEETMETAL FOR BALANCE DAMPER MARK OUT BALANCE DAMFER MARK OUT BALANCE DAMFER BEND SHEETMETAL ID 90 DECREES FOR BLANK END	< 33>	22-Jun-8
BLKEND.M24	S DEND DYDALYI DENDG EOD DIYNK END	< 33>	6-Jul-8 6-Jul-8
DIKEND, MA	) GREYD CODWEDG EOD DIYMK EMD D REWN FAKITAT REWNS FOK RTWW FWN	< 33>	31-May-8
BLKEND M21	SHEAR CORNERS FOR BLANK END SHEAR SHEETMETAL FOR RIANK END	< 33>	6-Jul-8
BLKEND M2(	) MARK OUT BLANK END	< 33 >	31-May-8
BLKEND MOS	MARK OUT BALANCE DAMFER  BEND SHEETMETAL UP 90 DEGREES FOR BLANK END  BEND PARTIAL BENDS FOR BLANK END  SHEAR CORNERS FOR BLANK END  MARK OUT BLANK END  BEND SHEETMETAL FOR BLANK END  BEND SHEETMETAL UP 90 DEGREES FOR BLANK END  BEND PARTIAL BENDS FOR BLANK END  SHEAR CORNERS FOR BLANK END  SHEAR SHEETMETAL FOR BLANK END  MARK OUT BLANK END  ASSEMBLY AREA (EXPANDED 4-12-83)  FORM RADIUS ON COLLAR CORNERS FOR F.O. TO R.C.  BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS  CUT RADIUS ON CORNERS FOR F.O. TO R.C.  SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS  MARK OUT FLAT OVAL TO RADIUS CORNERS  RIVET FLAT OVAL TO RADIUS CORNERS	< 33>	6-Jul-8
BLKEND.M04	BEND PARTIAL BENDS FOR BLANK END	< 33>	31-May-8
BLKEND.MO3	SHEAR CORNERS FOR BLANK END	< 33>	6-Jul-8
BLKEND.de	SHEAR SHEETMETAL FOR BLANK END	< 33>	6-Jul-8
BLKEND.MO]	MARK OUT BLANK END	< 33>	31-May-8
FIT .W1	1 ASSEMBLY AREA (EXPANDED 4-12-83)	< 33>	5-May-8
F02RC .M5	4 FORM RADIUS ON COLLAR CORNERS FOR F.O. TO R.C.	< 33>	17-May-8
F02RC .M5	3 BEND RADIUS FOR FLAT OVAL TO RADIUS CORNERS	< 33>	17-May-8
F02RC .M5	2 CUT RADIUS ON CORNERS FOR F.O. TO R.C.	< 33>	17-May-8
F02RC .M5	1 SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33>	17-May-8
FUZRC .M5	O MARK OUT FLAT OVAL TO RADIUS CORNERS	< 33>	17-May-8
FUZRC .M3	7 TACK WELD FLAT OVAL TO RADIUS CORNERS	<33>	1-Jul-8
	6 ASSEMBLE FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8 1-Jul-8
	5 BEND RADIUS ON FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8
	4 FORM RADIUS ON COLLARS FOR F.O. TO R.C. WELD	< 33>	9-May-8
	3 FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS	< 33>	9-May-8
	2 SHEAR RADIUS ON FLAT OVAL TO RADIUS CORNERS	< 33>	9-May-8
	1 SHEAR SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8
	O MARK OUT FLAT OVAL TO RADIUS CORNERS	< 33>	1-Ju1-8
	9 RIVET FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8
F02RC .M0	8 TACK WELD FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8
	7 ASSEMBLE FLAT OVAL TO RADIUS CORNERS	< 33>	6-May-8
	6 BEND SHEETMETAL FOR FLAT OVAL TO RADIUS CORNERS		6-May-8
	5 ROLL UP FLAT OVAL AND RADIUS CORNERS	< 33>	5-Mar-8
F02RC .MC	4 FORM LAP ENDS FOR FLAT OVAL TO RADIUS CORNERS	< 33>	1-Jul-8

```
TRANSF.M01 MARK OUT TRANSFORMER

VNELBO.M49 DEBURR ACCESS COVER & ACCESS HOLE

VNELBO.M48 CUT RUBBER GASKET FOR ACCESS PLATE

VNELBO.M47 TAP BOLT HOLES PLATE

VNELBO.M47 TAP BOLT HOLES PLATE

VNELBO.M47 TAP BOLT HOLES PLATE

VNELBO.M46 RIVET VANE TRACK & THROAT & HEEL LAPS

VNELBO.M47 TAP BOLT HOLES PLATE

VNELBO.M47 TAP BOLT HOLES PLATE

VNELBO.M48 ASSEMBLE ELBOW WITH VANE TRACK

VNELBO.M49 ASSEMBLE ELBOW WITH VANE TRACK

VNELBO.M44 TACK WELD VANE TURNS TO VANE TRACK

VNELBO.M43 SPOT WELD BACK UP PLATES TO ACCESS OPENING

VNELBO.M43 SPOT WELD BACK UP PLATES TO ACCESS OPENING

VNELBO.M43 SPOT WELD BACK UP PLATES TO ACCESS OPENING

VNELBO.M49 SPORM RADIUS ON VANES FOR ELBOW WITH VANE TRACK

VNELBO.M49 SPORM POSITION SPACERS IN PITTSBURGH LOCK

VNELBO.M40 POSITION SPACERS IN PITTSBURGH LOCK

VNELBO.M39 FORM PITTSBURGH LOCK ON VANE TRACK ELBOW

VNELBO.M39 FORM PITTSBURGH LOCK ON VANE TRACK

VNELBO.M39 FORM PITTSBURGH LOCK ON VANE TRACK

VNELBO.M30 SHEAR CHEEKS & ACCESS WITH UNI-SHEAR

VNELBO.M30 SHEAR CHEEKS, THROAT, HEEL, AND VANE TRACK

VNELBO.M30 SHEAR CHEEKS, THROAT, HEEL, AND VANE TRACK

VNELBO.M30 SHEAR CHEEKS, THROAT, HEEL, AND VANE TRACK

VNELBO.M31 SHARA OUT ACCESS COVER AND BACK UP PLATES

VNELBO.M32 LAYOUT 1/2 THROAT HEEL FOR 22X12 V.T ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT TO CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT TO CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 MARK OUT TO CHEEKS FOR 22 X12 VANE TRACK ELBOW

VNELBO.M31 BEND THROAT, HEEL X1 END PIECE FOR VANE TRACK

VNELBO.M31 BEND THROAT, HEEL TO ELBOW

VNELBO.M31 BEND THROAT, HEEL X1 END PIECE FOR VANE TRACK

VNELBO.M31 SEMBLE CHEEKS, THROAT A HEEL FOR VANE EL
```

%THIS DIRECTORY HAS AN INTERNAL STRUCTURAL ERROR. %PLEASE REPAIR IT WITH FIXDIR!

Operation (DE, PD, CP, H, or EX) ?

```
| STRIGHT.M42 CUT LAP CORNERS ON STRAIGHT SECTION | 335 | 7-Jul-93 | STRIGHT.M41 SHEAR SHEETMETAL FOR STRAIGHT SECTION | 335 | 7-Apr-83 | STRIGHT.M40 MARK OUT STRAIGHT SECTION | 335 | 7-Apr-83 | STRIGHT.M35 ASSEMBLE STRAIGHT SECTION | 335 | 7-Jul-83 | STRIGHT.M35 ASSEMBLE STRAIGHT SECTION | 335 | 7-Jul-83 | STRIGHT.M35 ASSEMBLE STRAIGHT SECTION | 335 | 25-Apr-83 | STRIGHT.M31 FORD PROFESSION | 335 | 25-Apr-83 | STRIGHT.M31 FORD PROFESSION | 335 | 25-Apr-83 | STRIGHT.M31 STRAIGHT SECTION | 335 | 25-Apr-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 25-Apr-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 25-Apr-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 7-Jul-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 7-Jul-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 7-Jul-83 | STRIGHT.M31 SHEAR SHEETMETAL FOR 12 'X8' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M31 CANDUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M31 LAPOUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M31 LAPOUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M31 LAPOUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M31 SHEAR TOTAL SECTION | 335 | 10-Mar-83 | STRIGHT.M31 SHEAR OUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M30 BARK OUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M30 BARK OUT 11' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M30 BASEMBLE STRAIGHT PIECE | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT IN' STRAIGHT SECTION | 335 | 10-Mar-83 | STRIGHT.M30 BASEMBLE STRAIGHT SHEEC | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT. STRAIGHT SHEEC | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT. STRAIGHT SHEEC | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT. STRAIGHT SHEEC | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT. STRAIGHT SHEEC | 335 | 10-Mar-83 | STRIGHT.M30 SHEAR OUT. STRAIGHT SHEED | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 | 335 | 10-Mar-83 |
```

```
OGRE .M26 FORM PITTSBURGH LOCK FOR OGRE
OGE .M25 FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE
OGE .M24 FORM LAP ENDS FOR OGE
OGE .M25 FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE
OGE .M24 FORM LAP ENDS FOR OGEE
OGE .M23 SHEAR RADIUS ON CHERKS FOR OGEE
OGE .M23 SHEAR RADIUS ON CHERKS FOR OGEE
OGE .M25 SHEAR RADIUS ON CHERKS FOR OGEE
OGE .M26 MARK OUT CHEEKS FOR OGEE
OGE .M26 MARK OUT CHEEKS FOR OGEE
OGE .M26 MARK OUT CHEEKS FOR OGEE
OGE .M26 MARK OUT CHEEKS FOR OGEE
OGE .M36 FORM OGEE
OGE .M37 SHEAR RADIUS FOR OGEE
OGE .M38 SHEAR RADIUS FOR OGEE
OGE .M39 SHEAR RADIUS FOR OGEE
OGE .M39 SHEAR RADIUS FOR OGEE
OGE .M30 SHEAR RADIUS FOR OGEE
OGE .M31 SHEAR SHEEMMTAL FOR OGEE
OGE .M32 SHEAR RADIUS FOR OGEE
OGE .M33 SHEAR SHEEMMTAL FOR OGEE
OGE .M33 SHEAR SHEEMMTAL FOR OGEE
OGE .M34 SHEAR RADIUS FOR OGEE
OGE .M35 SHEAR SHEEMMTAL FOR OGEE
OGE .M35 SHEAR SHEEMMTAL FOR OGEE
OGE .M35 SHEAR SHEEMMTAL FOR OGEE
OGE .M35 SHEAR SHEEMMTAL FOR OGEE
OGE .M36 SHEAR RADIUS FOR OGEE OFFSET
OGEN .M3 SHEAR SHEEMMTAL FOR OGEE
OGE .M37 SHEAR SHEEMMTAL FOR OGEE
OGE .M38 SHEAR SHEEMMTAL FOR OGEE
OGE .M38 SHEAR SHEEMMTAL FOR OGEE
OGE .M31 SHEAR SHEEMMTAL FOR OGEST
OGEN .M30 SHEAR SHEEMMTAL FOR OFFSET SQUARE TO ROUND
OGEN .M37 SHEAR SHEEMMTAL FOR OFFSET SQUARE TO ROUND
OGEN .M38 TACK ALL COLLAR TO OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M38 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR OFFSET SQUARE TO ROUND
OGEN .M39 SHEAR RADIUS FOR .M39 SHEAR SADIUS SA
```

## MOST directory for( 39, 3)

File	Description	Protect-	Created
Name Ext	TEAD DOWN ALIMINIM MELDING	ion < 33>	O T O
	TEAR DOWN ALUMINUM WELDING ALUMINUM WELDING	< 33>	
	ATTIMETIME THE DELIC		7-Jan-8
RMOIITH M39	WELD BELLMOUTH WELD BELLMOUTH ASSEMBLE CHEEKS THROAT, AND HEEL FOR ELBOW FORM RADIUS ON THROAT AND HEEL FOR ELBOW POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW FORM LAP ENDS ON SHEETMETAL FOR ELBOW SHEAR RADIUS ON CHEEKS FOR ELBOW SHEAR SHEETMETAL FOR ELBOW MARK OUT HEEL AND THROAT FOR ELBOW MARK OUT CHEEKS FOR ELBOW FORM PADIUS ON THROAT & HEEL FOR ELBOW	<33>	18-Jul-8
BMOUTH M10	WELD BELLMOUTH	< 33 >	18-Jul-8
ELBOW .M49	ASSEMBLE CHEEKS THROAT, AND HEEL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M48	FORM RADIUS ON THROAT AND HEEL FOR ELBOW	< 33>	14-Apr-8
ELBOW .M47	POSITION SPACERS IN PITTSBURGH LOCKS FOR ELBOW	< 33>	14-APr-8
ELBOW .M46	FORM PITTSBURGH LOCK ON THROAT & HEEL FOR ELBOW	< 3 3 >	14-Apr-8
ELBOW .M45	FORM 90DEGREE EDGE ON CHEEKS FOR ELBOW	< 33>	14-Apr-8
ELBOW .M44	FORM LAP ENDS ON SHEETMETAL FOR ELBOW	< 33>	14-APr-8
ELBOW .M43	SHEAR RADIUS ON CHEEKS FOR ELBOW	< 3 3 >	14-APr-8
ELBOW .M42	SHEAR SHEETMETAL FOR ELBOW	< 3 3 >	14-APr-8
ELBOW .M41	MARK OUT HEEL AND THROAT FOR ELBOW	< 3 3 >	14-Apr-8
ELBOW .M40	MARK OUT CHEEKS FOR ELBOW	< 3 3	14-Apr-8
ELBOW .M23	MARK OUT CHEEKS FOR ELBOW FORM RADIUS ON THROAT & HEEL FOR ELBOW SHEAR RADIUS ON CHEEKS FOR ELBOW SHEAR SHEETMETAL FOR REC. ELBOW WITH VANE TURNS MARK OUT TURN VANES FOR RECTANGULAR ELBOW MARK OUT THROAT AND HEEL FOR ELBOW MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS ASSEMBLE ELBOW	< 3 3	11-APr-8 12-Apr-8
ELBOW .M24	CHEVO CHEELANTI EUD DEU ELBUM MITTU VANE TIIDNO	< 33>	12-Apr-8
ELBOW .M23	MARK OUT TURN VANES FOR RECTANGULAR FUROW	< 33>	12-Apr-8
ELBOW .M22	MARK OUT THROAT AND HEEL FOR ELBOW	<33>	11-Apr-8
ELBOW .M21	MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS	< 33 >	11-Apr-8
ELBOW .MO9	MARK OUT CHEEKS FOR ELBOW WITH VANE TURNS ASSEMBLE ELBOW FORM EDGE ON ELBOW CHEEKS FORM ELBOW RADIUS THROAT & HEEL FORM PITTSBURGH LOCK ON ELBOW FORM ELBOW LAP SHEAR ELBOW RADIUS LINES SHEAR OUTLINES OF ELBOW MARK OUT ELBOW THROAT & HEEL MARK OUT ELBOW (# 7) CHEEKS ASSEMBLY AREA (EXPANDED 4-12-83) ASSEMBLY AREA (EXPANDED 4-12-83) SKETCH -ASSEMBLY (EXPANDED 4/6/83) ASSEMBLY AREA (WITH 4TH EXPANSION) ASSEMBLY AREA (WITH 3RD EXPANSION) ASSEMBLY AREA (EXPANDED) SSEMBLY AREA (EXPANDED) SKETCH ASSEMBLY AREA (EXPANDED) SKETCH ASSEMBLY AREA (EXPANDED)	< 33>	10-Mar-8
ELBOW .MO8	FORM EDGE ON ELBOW CHEEKS	< 3 3 >	10-Mar-
ELBOW .MO7	FORM ELBOW RADIUS THROAT & HEEL	< 3 3 >	J 11011 0
ELBOW .MO6	FORM PITTSBURGH LOCK ON ELBOW	< 3 3 >	9-Mar-8
ELBOW .M05	FORM ELBOW LAP	< 3 3 >	9-Mar-8
ELBOW .M04	SHEAR ELBOW RADIUS LINES	<33>	9-Mar-8
ELBOW .M03	SHEAR OUTLINES OF ELBOW	< 33 >	9-Mar-8
ELBOW .M02	MARK OUT ELBOW THROAT & HEEL	< 33 >	9-Mar-8
ELBOW .MOI	MARK OUT ELBOW (# 7) CHEEKS	<33> <33>	9-Mar-8
F.T.I. MTT	ASSEMBLY AREA (EXPANDED 4-12-83)	<33>	12-Apr-8
F.T.I. MTO	ASSEMBLY AREA (EXPANDED 4-12-83)	<33>	12-Apr-8
FIT .WU9	SKETCH -ASSEMBLY (EXPANDED 4/0/03)	<33>	6-Apr-8 23-Mar-8
FII • WUG	ASSEMBLI AREA ( WIID 4ID EXPANSION)	< 33>	23-Mar-8
FIT WOA	ASSEMBLY AREA (WITH SKD EXPANSION)	< 33 >	21-Mar-8
FIT WOS	ASSEMBLY AREA (EXPANDED)	< 33 >	15-Mar-8
FIT .W04	SKETCH ASSEMBLY AREA WITH SHEETMETAL-STORAGE	< 33>	17-Feb-8
	SKETCH ASSEMBLY AREA 3	< 33>	7-Feb-8
FIT .W02	SKETCH ASSEMBLY AREA 2	< 33>	4-Feb-8
FIT .WOl	SKETCH ASSEMBLY AREA	< 3 3 >	28-Jan-8
	RIVET FLAT OVAL ASSEMBLY	< 33 >	25-Apr-8
	WELD FLAT OVAL	< 33>	21-Jul-8
	TACK WELD COLLAR TO FLAT OVAL	< 33 >	25-APr-8
FLOVAL.M36	ASSEMBLE FLAT OVAL	<33> <33>	22-Apr-8
FLOVAL.M35	BEND RADIUS FOR FLAT OVAL		22-Apr-8
Cal duki yaa	FORM RADIUS ON COLLAR FOR FLAT OVAL	< 33>< < 33>	14-Apr-8
LUVAL + M33	FORM LAP ENDS FOR FLAT OVAL	<33>	14-Apr-6
₽T.∩₹7λ1 M21	SHEAR RADIUS FOR FLAT OVAL SHEAR SHEETMETAL FOR FLAT OVAL	<33>	14-Apr-8 14-Apr.
	MARK OUT SHEETMETAL FOR FLAT OVAL	< 33 >	14-Apr. 14-Apr-8
V111 • 1·15 U	TANCE OUT DITELLIFICATION FOR FIRST OVAL		Vbr 0

STRGHT.M42 CUT STAINLESS SHEETMETAL FOR STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M41 SHEAR STAINLESS SHEETMETAL FOR STRAIGHT SECTION	< 33>	27-Jul-8
STRGHT.M40 MARK OUT STAINLESS STEEL STRAIGHT SECTION	< 33>	27-Jul-8
OMPOSIM MASS OF AN MAIN OMPAIGUM OF CONTON	< 33>	27-Jul-8
STRGHT.M24 BEND STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M23 FORM LAP ENDS ON STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M22 CUT CORNERS FOR STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M21 SHEAR STRAIGHT SECTION	< 33>	22-Jul-8
STRGHT.M20 MARK OUT STRAIGHT SECTION	< 33>	22-jul-8
STRGHT.MO7 ASSEMBLE STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M25 SEAM WELD STRAIGHT SECTION  STRGHT.M24 BEND STRAIGHT SECTION  STRGHT.M23 FORM LAP ENDS ON STRAIGHT SECTION  STRGHT.M22 CUT CORNERS FOR STRAIGHT SECTION  STRGHT.M21 SHEAR STRAIGHT SECTION  STRGHT.M20 MARK OUT STRAIGHT SECTION  STRGHT.M07 ASSEMBLE STRAIGHT SECTION  STRGHT.M06 BEND SHEETMETAL FOR STRAIGHT SECTION  STRGHT.M05 FORM PITTSBURGH FOR STRAIGHT SECTION  STRGHT.M04 FORM LAP END FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M05 FORM PITTSBURGH FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.MO4 FORM LAP END FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M03 CUT CORNERS ON SHEETMETAL FOR STRAIGHT SECTION STRGHT.M02 SHEAR SHEETMETAL FOR STRAIGHT SECTION STRGHT.M01 MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.MO2 SHEAR SHEETMETAL FOR STRAIGHT SECTION	< 33>	30-Jun-8
STRGHT.M01 MARK OUT SHEETMETAL FOR STRAIGHT SECTION	< 33>	25-jul-8
TRANSF.M28 ASSEMBLE TRANSFORMER	< ১১>	29-Jun-8
TRANSF.M27 BEND SHEETMETAL LAP ENDS FOR TRANSFORMER	< 33>	29-Jun-8
		29-Jun-8
TRANSF.M26 BEND SHEETMETAL FOR TRANSFR TRANSF.M25 FORM PITTSBURGH LOCK FOR TRANSFORMER TRANSF.M24 FORM LAP END ON TRANSFORMER TRANSF.M23 SHEAR UNEVEN END OF TRANSFORMER TRANSF.M22 SHEAR SHEETMETAL FOR TRANSFORMER TRANSF.M21 MARK OUT TOP FOR TRANSFORMER TRANSF.M20 MARK OUT SHEETMETAL FOR TRANSFORMER TRANSF.M20 MARK OUT SHEETMETAL FOR TRANSFORMER TRANSF.M20 MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M24 FORM LAP END ON TRANSFORMER	< 33>	29-Jun-8
TRANSF.M23 SHEAR UNEVEN END OF TRANSFORMER	< 33>	29-Jun-8
TRANSF.M22 SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M21 MARK OUT TOP FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M20 MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	29-Jun-8
TRANSF.M06 WELD TRANSFORMER	< 33>	19-JUl-8
TRANSF.M05 BEND SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M04 CUT SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.M03 SHEAR SHEETMETAL FOR TRANSFORMER	< 33>	23-Jun-8
TRANSF.MO3 SHEAR SHEETMETAL FOR TRANSFORMER TRANSF.MO2 MARK OUT SHEETMETAL TOP FOR TRANSFORMER TRANSF.MO1 MARK OUT SHEETMETAL FOR TRANSFORMER NELBO.M30 WELD ELBOW WITH VANE TRACK	< 33>	23-Jun-8
TRANSF.M01 MARK OUT SHEETMETAL FOR TRANSFORMER	< 33>	
NELBO.M30 WELD ELBOW WITH VANE TRACK		
NELBO,M17 WELD ELBQW WITH VANE TRACK	< 33>	
WELD .W01 SHEETMETAL SHOP WELDING BOOTH	< 33>	19-Jul-8

Operation (DE, PD, CP, PM, AA, DA, AP, H, or EX) ?

## MOST directory for( 39, 101)

File Name Ext	Description	Protect-	Created
RMOTITH M40	ASSEMBLE BELLMOUTH	< 3 3 >	29-Jun-8
BMOITTH M38	TACK WELD SHEETMETAL BELLMOUTH	<33>	29-JUN-8
BMOTTH M37	SPOT WELD SCREEN ASSEMBLY FOR RELLMOTTH	< 3 3 >	29-Jun-8
BMOUTH M36	REND SHEETMETAL FOR BELLMOUTH	< 3 3 >	29-Jun-8
BMOUTH M35	ASSEMBLE BELLMOUTH TACK WELD SHEETMETAL BELLMOUTH SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH BEND SHEETMETAL FOR BELLMOUTH FORM RADIUS FOR BELLMOUTH	<33>	29-Jun-8
BMOUTH M34	SHEAR SHEETMETAL RADIUS FOR RELLMOUTH	<33>	29-JUN-8
BMOTITH M33	CHEAR CHEETMETAL FOR RELLMOUTH	<33>	28-Jun-8
BMOUTH M32	MARK OUT SCREEN FRAME FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH M31	MARK OUT 2X2 WIRE MESH FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH, M30	MARK OUT SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M11	ASSEMBLE BELLMOUTH	<33>	28-Jun-8
BMOUTH.MO9	TACK WELD SHEETMETAL BELLMOUTH	<33>	28-Jun-8
BMOUTH.M08	SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH.M07	BEND SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M06	FORM RADIUS FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M05	SHEAR SHEETMETAL RADIUS FOR BELLMOUTH	< 3 3 >	28-Jun-8
BMOUTH.M04	SHEAR SHEETMETAL FOR BELLMOUTH	<33>	28-Jun-8
BMOUTH.M03	MARK OUT SCREEN FRAME FOR BELLMOH	<33>	28-JUN-8
BMOUTH.M02	MARK OUT 2X2 WIRE MESH FOR BELLMOUTH	<33>	24-JUN-8
BMOUTH.M01	MARK OUT SHEETMETAL FOR BELLMOUTH	<33>	24-Jun-8
BRACKT.M23	RIVET BRACKET TO VENT DUCT	<33>	6-Jul-8
BRACKT.M22	BEND SHEETMETAL FOR BRACKET	<33>	23-JUn-
BRACKT.M21	SHEAR SHEETMETAL FOR VENT DUCT	<33>	23-JUN-
BRACKT.M20	MARK OUT SHEETMETAL FOR BRACKET	<33>	23-JUN-8
BRACKT.M04	TACK WELD SHEETMETAL BELLMOUTH SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH BEND SHEETMETAL FOR BELLMOUTH FORM RADIUS FOR BELLMOUTH SHEAR SHEETMETAL RADIUS FOR BELLMOUTH SHEAR SHEETMETAL FOR BELLMOUTH MARK OUT SCREEN, FRAME FOR BELLMOUTH MARK OUT 2X2 WIRE MESH FOR BELLMOUTH MARK OUT SHEETMETAL FOR BELLMOUTH ASSEMBLE BELLMOUTH TACK WELD SHEETMETAL BELLMOUTH SPOT WELD SCREEN ASSEMBLY FOR BELLMOUTH SHEAR SHEETMETAL FOR BELLMOUTH SHEAR SHEETMETAL FOR BELLMOUTH SHEAR SHEETMETAL FOR BELLMOUTH MARK OUT SCREEN FRAME FOR BELLMOUTH MARK OUT SCREEN FRAME FOR BELLMOUTH MARK OUT SCREEN FRAME FOR BELLMOUTH MARK OUT SHEETMETAL FOR BELLMOUTH MARK OUT SHEETMETAL FOR BELLMOUTH RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET SHEAR SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET RIVET BRACKET TO VENT DUCT BEND SHEETMETAL FOR BRACKET	< 33>	24-JUN-8
BRACKT.M03	BEND SHEETMETAL UP 90 DEGREES	<33>	23-JUn-8
BRACKT.M02	SHEAR SHEETMETAL FOR BRACKET	<33>	23-JUN-8
BRACKT.M01	MARK OUT SHEETMETAL FOR BRACKET	<33>	23-Jun-8
ELBOW .M26	WELD RECTANGULAR ELBOW	<33>	20-Jul-8
FIT .W14	FIT AREA WITH SECOND SEAM WELDER EXPANSION	< 3.3 >	27-Jul-8
FIT .W13	FIT AREA WITH SEAM WELDER EXPANSION	<33>	22-JUL-8
FIT .WIZ	ASSEMBLY AREA (LAST EXPANSION BEFORE S.W.)	<33>	23-JUN-8
FIT .WII	ASSEMBLY AREA (EXPANDED 4-12-83)	< 3 3 ×	9-JUN-8
FLANGE MIU	RIVET FLANGE TO VENT DUCT (TEMPORARILY)	< 3 3 >	28-JUN-8
FLANGE.MUL	WELD RECTANGULAR ELBOW  FIT AREA WITH SECOND SEAM WELDER EXPANSION  FIT AREA WITH SEAM WELDER EXPANSION  ASSEMBLY AREA (LAST EXPANSION BEFORE S.W.)  ASSEMBLY AREA (EXPANDED 4-12-83)  RIVET FLANGE TO VENT DUCT (TEMPORARILY)  RIVET FLANGE TO VENT DUC (TEMPORARILY)  WELD FLAT OVAL TO RADIUS CORNERS  WELD SOUARE TO FLAT OVAL	< 3 3 >	28-Jun-8
FOZRC.M55	WELD FLAT OVAL TO RADIUS CORNERS	<33>	21-Jul-8 22-JUL-8
		<33>	
	WELD RECTANGULAR OFFSET WELD OFFSET	<33>	20-Jul-8
	WELD OFFSET WELD OGEE OFFSET	< 33>	21-Jul-8 21-Jul-8
	WELD OFFSET SQUARE TO ROUND	< 3 3 >	19-Jul-8
	WELD RECTANGULAR TO RADIUS CORNERS	< 33>	20-JUL-8
	WELD ROUND TO ROUND	< 33 >	20-JuL-8
	WELD SQUARE TO ROUND	<33>	21-Jul-8
	WELD SQUARE TO ROUND	<33>	20-JUL-8
	WELD SQUARE TO ROUND	<33>	2o-Jul-8
	WELD STRAIGHT SECTION	<33>	19-Jul-8
	WELD STRAIGHT SECTION	< 33 >	21-JUL-8
	WELD STAINLESS STEEL STRAIGHT SECTION	< 3 3 >	27-JU1-
	BEND STAINLESS STEEL FOR STRAIGHT SECTION	<33>	27-JUL
STRGHT.M43	FORM LAPENDS FOR STRAIGHT SECTION	< 3 3 >	27-JUL-8

```
<33> 6-JUL-8
<33> 6-Jul-8
<33> 20-Mar-8
<33> 19-MAY-8
<33> 19-May-8
<33> 19-May-8
<33> 18-May-8
<33> 26-Jul-8
TRANSF.M82 CUT SHEETMETAL FOR OFFSET TRANSFORR
TRANSF.M81 SHEAR SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M80 MARK OUT SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M73 BEND SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M72 CUT SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M72 CUT SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M71 SHEAR SHEETMETAL FOR OFFSET TRANSFORMER
TRANSF.M70 MARK OUT TRANSFORMER
TRANSF.M53 BEND SHEETMETAL FOR TRANSFORMER
                                                                              <33> 26-Jul-8 <33> 26-Jul-8
TRANSF.M52 CUT SHEETMETAL FOR TRANSFORMER
TRANSF.M51 SHEAR SHEETMETAL FOR TRANSFORMER
                                                          7-JUL-8
7-JUL-8
7-JUL-8
7-JUL-8
TRANSF.M50 MARK OUT TRANSFORMER
TRANSF.M47 ASSEMBLE TRANSFORMER
TRANSF.M46 BEND SHEETMETAL FOR TRANSFORMER
TRANSF.M45 BEND SHEETMETAL FOR TRANSFORMER
<33> 11-Jul-8 <33> 11-Jul-8
TRANSF.M34 FORM PITTSBURGH LOCK FOR TRANSFORMER
                                                            TRANSF.M33 FORM LAP ENDS FOR TRANSFORMER TRANSF.M32 CUT CORNERS FOR TRANSFORMER
TRANSF.M31 SHEAR SHEETMETAL FOR TRANSFORMER
TRANSF.M30 MARK OUT TRANSFORMER
```

Jearation (DE, PD, CP, H, or EX) ?

```
RODUCT.M33 FORM LAP SEAM ON ROUND DUCT

RODUCT.M32 CUT CORNERS FOR ROUND DUCT

RODUCT.M31 SHEAR SHEETHETAL FOR ROUND DUCT

RODUCT.M33 SHEAR SHEETHETAL FOR ROUND DUCT

RODUCT.M35 FOR ROUND FLAMETER FOR ROUND DUCT

RODUCT.M25 FOR ROUND FLAMETER FOR ROUND DUCT

RODUCT.M25 FOR ROUND FLAMETER FOR ROUND DUCT

RODUCT.M27 FOR ROUND FLAMETER FOR ROUND DUCT

RODUCT.M27 HARR SHEETHETAL FOR ROUND DUCT

RODUCT.M28 FOR ROUND DUCT

RODUCT.M37 FOR ROUND DUCT

RODUCT.M37 FOR ROUND DUCT

RODUCT.M38 FOR ROUND DUCT

RODUCT.M39 FOR ROUND DUCT

RODUCT.M39 FOR ROUND DUCT

RODUCT.M39 FOR ROUND DUCT

RODUCT.M39 FOR ROUND DUCT

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

RODUCT.M30 FOR ROUND DUCT SECTION

R
                                                                                                                                                                                                                                                                                                                                                          31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                          31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                          1-Jun-8
                                                                                                                                                                                                                                                                                                                                                            l-Jun-
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-Mar-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                         31-Mar-83
                                                                                                                                                                                                                                                                                                                                                         31-Mar-83
                                                                                                                                                                                                                                                                                                                                                         31-May-83
                                                                                                                                                                                                                                                                                                                                                        1-Jun-83
                                                                                                                                                                                                                                                                                                                                                            1-Jun-83
                                                                                                                                                                                                                                                                                                                                                          1-Jun-83
                                                                                                                                                                                                                                                                                                                                                            1-Jun-83
                                                                                                                                                                                                                                                                                                                                                         1-Jun-83
                                                                                                                                                                                                                                                                                                                                                            1-Jun-83
                                                                                                                                                                                                                                                                                                                                                         16-May-83
                                                                                                                                                                                                                                                                                                                                                         16-May-83
                                                                                                                                                                                                                                                                                                                                                         25-Mar-83
                                                                                                                                                                                                                                                                                                                                                         25-May-83
                                                                                                                                                                                                                                                                                                                                                         25-Mar-8
                                                                                                                                                                                                                                                                                                                                                        25-Mar-8
                                                                                                                                                                                                                                                                                                                                                         25-Mar-8
                                                                                                                                                                                                                                                                                                                                                         24-May-8
                                                                                                                                                                                                                                                                                                                                                         24-May-8
                                                                                                                                                                                                                                                                                                                                                         24-May-
                                                                                                                                                                                                                                                                                                                                                        24-MAY-83
                                                                                                                                                                                                                                                                                                                                                        24-MAy-8
                                                                                                                                                                                                                                                                                                                                                        24-MaY-8
                                                                                                                                                                                                                                                                                                                                                        24-May-8
                                                                                                                                                                                                                                                                                                                                                        24-May-8
                                                                                                                                                                                                                                                                                                                                                        24-May-8
                                                                                                                                                                                                                                                                                                                                                        8-Jul-8
                                                                                                                                                                                                                                                                                                                                                         8-Jul-8
                                                                                                                                                                                                                                                                                                                                                        24-May-8
                                                                                                                                                                                                                                                                                                                                                        16-May-8
                                                                                                                                                                                                                                                                                                                                                         16-May-8
                                                                                                                                                                                                                                                                                                                                                          7 - Jul - 8
                                                                                                                                                                                                                                                                                                                                                         16-May-8
                                                                                                                                                                                                                                                                                                                                                        16-May-8
                                                                                                                                                                                                                                                                                                                                                         16-MaY-8
                                                                                                                                                                                                                                                                                                                                                        16-May-8
                                                                                                                                                                                                                                                                                                                                                        21-Jul-8
                                                                                                                                                                                                                                                                                                                                                        13-May-8
                                                                                                                                                                                                                                                                                                                                                        13-May-8
                                                                                                                                                                                                                                                                                                                                                        13-May-8
                                                                                                                                                                                                                                                                                                                                                        13-MaY-8
                                                                                                                                                                                                                                                                                                                                                        13-MaY-8
                                                                                                                                                                                                                                                                                                                                                        13-May-8
                                                                                                                                                                                                                                                                                                                                                       6-Jul-8
                                                                                                                                                                                                                                                                                                                                                        7 - Jul - 8
                                                                                                                                                                                                                                                                                                                                                       6 - Jul - 8
                                                                                                                                                                                                                                                                                                                                                       20-May-8
                                                                                                                                                                                                                                                                                                                                                      6-Jul-
```

```
ET < 33> 25-May-8
CENTER < 33> 12-May-8
             MARK OUT SQUARE TO ROUND WITH OFFSET
 OSO2RN.M70
 OSQ2RN.M30 RIVET
                      SQUARE TO ROUND
                                               OFF
            TACK WELD COLLAR TO SQUARE, TO ROUND OFF CENTER
                                                                           ,12-May-8
 OSQ2RN.M28
                                                                   < 330 SH62-May-8
                          SQUARE TO ROUND OFF
             ASSEMBLE
                                                        CENTER
 OSQ2RN.M27
             BEND LAP ENDS FOR SQUARE TO ROUND OFF CENTER < 33> 12-May-8
BEND RADIUS FOR SQUARE TO ROUND OFF CENTER < 33> 12-May-8
FORM COLLAR FOR SQUARE TO ROUND OFF CENTER < 33> 12-May-8
 OSO2RN.M26
 JSQ2RN.M25 BEND RADIUS FOR SQUARE TO ROUND OFF
            FORM COLLAR FOR SQUARE TO ROUND OFF
 SQ2RN.M24
            FORM LAP ENDS ON SQUARE TO ROUND OFF CENTER < 33> 11-May-8
SHEAR RADIUS FOR SQUARE TO ROUND OFF CENTER 33> 11-May-8
 OSO2RN.M23
 OSO2RN.M22
             MARK OUT SHEETMETAL FOR SQUARE TO ROUND OFF CENTER 33> -11-May-8
FORM RADIUS FOR COLLAR FOR RECT TO PARTIE CORNER
OSO2RN.M21
 OSO2RN.M20
            FORM RADIUS FOR COLLAR FOR RECT TO RADIUS CORNER < 33 18-May-8
BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS < 33 17-May-8
CUT RADIUS FOR RECTANGULAR TO RADIUS CORNERS < 33 17-May-8
 RCT2RC.M54
 RCT2RC.M53
 RCT2RC.M52
             SHEAR SHEETMETAL FOR RECTANGULAR -TO RADIUS CORNERS <33>._ 17-May-8
 RCT2RC.M51
 RCT2RC.M50
             MARK OUT RECTANGULAR TO RADIUS CORNERS
                                                                    <33>
                                                                           17-May-8
 RCT2RC.M40 RIVET
                                           RADIUS
                                                                   <33>
                     RECTANGULAR
                                      ΤO
                                                     CORNERS
                                                                          17-May-8
             TACK RADIUS CORNERS ON RECT. TO RADIUS CORNERS
                                                                    <33>
                                                                            I7-MaY-8
 RCT2RC.M38
 RCT2RC.M37 ASSEMBLE RECTANGULAR TO RADIUS CORNERS <33> RCT2RC.M36 BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS <33>
                                                                           17-MaY-8
                                                                           17-May-8
             FORM RADIUS ON COLLARS FOR RECT. TO RADIUS CORNERS
                                                                    <33>
                                                                            17-May-8
 RCT2RC.M35
 RCT2RC.M34 BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS ...
                                                                   < 33 >
                                                                           17-MaY-8
                                                                    <33>
 RCT2RC.M33 FORM LAP ENDS ON RECTANGULAR TO RADIUS CORNERS ...
                                                                            17-Mar-8
             SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS
                                                                   <33>
                                                                            17-May-8
 RCT2RC.M32
             SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS <33> 17-May-8
 RCT2RC.M31
 RCT2RC.M30 MARK OUT
                        RECTANGULAR TO RADIUS
                                                     CORNERS
                                                                   < 33>
                                                                            17-MaY-8
             RIVET RECTANGULAR TO RADIUS CORNERS
                                                                    < 33>
                                                                            13-MaY-8
 RCT2RC.M11
             TACK RADIUS CORNERS ON RECT. TO RADIUS, CORNERS
                                                                   < 3 3 >
                                                                            13-May-8
 RCT2RC.M09
 RCT2RC.M08 ASSEMBLE RECTANGULAR TO RADIUS CORNERS
                                                                    <33>
                                                                            13-MaY-8
 RCT2RC.M07 BEND LAP ENDS FOR RECTANGULAR TO RADIUS CORNERS
                                                                   < 33>
                                                                          13-MaY-8
RCT2RC.MO6 FORM RADIUS FOR RECTANGULAR, TO RADIUS CORNERS
                                                                    <33>
                                                                            13-May-8
  RCT2RC.M05 BEND RADIUS FOR RECTANGULAR TO RADIUS CORNERS
                                                                   < 33>
                                                                            13-May-8
 RCT2RC.MO4 FORM LAP ND ON RECTANGULAR TO RADIUS CORNERS
                                                                            13-MaY-8
                                                                   <33>
  RCT2RC.M03 SHEAR RADIUS FOR RECTANGULAR TO RADIUS CORNERS
                                                                    <33>
                                                                           13-May-8
 RCT2RC.M02 SHEAR SHEETMETAL FOR RECTANGULAR TO RADIUS CORNERS <33>
                                                                            13-May-8
  RCT2RC.,M01 MARK OUT SHEETMETAL FOR RECT., TO RADIUS CORNERS <33>
                                                                            12-MaŸ-8
  RO2RC.MO3 SHEAR RADIUS FLAT OVAL TO RADIUS CORNERS
                                                                  <33>
                                                                            1-JUL-8
  R02RO.M43 FORM RADIUS FOR ROUND TO ROUND TRANSITION
                                                                    <33>
                                                                            26-May-8
  RO2RO.M42 CUT RADIUS FOR ROUND TO ROUND TRANSITION <33> 2 6 - M A Y -
  RO2RO .M41 SHEAR SHEETMETAL FOR ROUND TO ROUND TRANSITION
                                                                   <33>. 26-MAY-8
  R02RO .M40 MARK OUT DUND TO ROUND
                                                                  <33>
                                              TRANSITION
                                                                            26-May-8
  R02RO.M24 TACK ROUNI
                                                               < 33 > 26 - May - 8
                              TO ROUND
                                              TRANSITION
  R02RO.M23 FORM RADIS FOR ROUND TO ROUND
                                                      TRANSITION <33>
                                                                            26-MAY-8
  R02RO.M22 CUT RADIUES FOR ROUND TO ROUND TRANSITION
                                                                   <33>
                                                                           26-MAY-8
  R02RO.M21 SHEAR SHEETMETAL FOR ROUND TO ROUND, TRANSITION <33>
                                                                           26-May-8
  RO2RO.M20 MARK
                           DUND TO ROUND TRANSITION
                                                                   <33>
                     OUT
                                                                           26-May-8
 RODUCT.M55 RIVET ROUD DUCT SECTION
                                                                    < 33>
                                                                           26-Jul-8
  RODUCT.M54 FORM ROUNI DIAMETER
                                           FOR
                                                            DUCT
                                                  ROUND
                                                                   < 33>
                                                                             1-Jun-8
  RODUCT.M53 FORM LAP EAN ON ROUND DUCT
                                                                   <33>.
                                                                            1-JUN-8
  RODUCT.M52 CUT
                   CORNES
                               FOR
                                          ROUND
                                                   DUCT
                                                                   <33>
  RODUCT.M51 SHEAR SHETMETAL FOR
                                                                     <33>
                                                                            1-JUN-8
                                          ROUND
                                                   DUCT;
  RODUCT.M50 MARK OUT DUND DUCT SECTION
                                                                      <33>
                                                                             1-Jun-8
  RODUCT.M45 RIVET ROUD DUCT SECTION
                                                                   < 33>
                                                                           1-JUN-8
  RODUCT.M44 FORM ROUN DIAMETER FOR ROUND DUCT
                                                                    < 33>
                                                                             1-JUN-8
                                                                    < 33>
  RODUCT.M43 FORM
                                                       DUCT
                      LAP EAM ON ROUND
                                                                          1 - JUN - 8
  RODUCT.M42 CUT CORNES FOR ROUND DUCT
                                                                      <33>,
                                                                             1-JuN-8
  RODUCT, M41 SHEAR SHETMETAL
                                    FOR
                                           ROUND
                                                                    < 33>
                                                                             1-Jun-8
  RODUCT.M40 MARK OUT FOUND DUCT
                                                                     <33>
                                                                            26-JUL-8
  RODUCT.M35 RIVET ROUD IUCT SECTION
                                                                      <33>
                                                                            31-May-8
  RODUCT.M34 FORM ROUN DIAMETER FORUCT
                                                                      <33>
                                                                            31-May-8
```

```
FORRC . HOZ SHEAR SHEETHETAL FOR FLAT OVAL TO RABIUS CORNERS
                                                                    < 33>
                                                                              5-May-8
 FORRE . HOT MARK OUT FLAT OVAL TO RADIUS CORNERS .
                                                                    < 33>
                                                                             5-May-8
 FO2SGE-M54 FORM COLLAR FOR FLAT OVAL TO SQUARE CORNERS FO2SGE M53 BEND RADIUS FOR FLAT OVAL TO SQUARE CORNERS
                                                                    < 33>
                                                                            24-May-8
                                                                    < 33>
                                                                            24-May-8
 FO2SGC. M52 CUT RADIUS FOR FLAT OVAL TO SQUARE CORNERS FO2SGE M51 SHEAR SHEETHETAL FOR FLAT OVAL TO SQUARE CORNERS
                                                                    < 33>
                                                                            24-Mas-1
                                                                    < 33>
                                                                            24-May-L
 FO2506 M50 MARK OUT FLAT OVAL TO SQUARE CORNER
                                                                    < 33>
                                                                            24-May-8
 GELBOW. M24 ASSEMBLE 5 BORED ELBOW
                                                                    < 33>
                                                                            24-May-8
 GELBOW: M23 FORM SHEETMETAL FOR 5 GORED ELBOW
                                                                    < 33>
                                                                            24-May-8
 GELBOW, M22 SHEAR SHEETHETAL FOR 5 GORED ELBOW
                                                                    < 33>
                                                                            23-May-8
 GELBOW H21 SHEAR SHEETHETAL FOR 5 GORED ELBOW
                                                                    < 33>
                                                                            23-May-8
 GELBOW M20 MARK OUT 5 BORED ELBOW.
                                                                    < 33>
                                                                            23-May-8
 OFFSET M94 FORM RADIUSES ON WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                            26-May-8
 OFFSET . MAS CUT RADIUSES AND CORNERS FOR OFFSET
                                                                    <
                                                                      33>
                                                                            26-May-8
 OFFSET.M92 SHEAR CHEEKS AND WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                            26-May-8
 OFFSET #M91 MARK OUT WRAPPERS FOR OFFSET 1
                                                                    < 33>
                                                                            26-May-8
- OFFSET. MOO MARK OUT CHEEKS FOR OFFSET
                                                                    < 33>
                                                                            26-May-8
 OFFSET M89 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                            11-Mas-8
- OFFSET. M88 FORM RADIUS ON WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                             8-Ju1-8
 OFFSET HS7 POSITION SPACERS IN FITTSBURGH LOCKS FOR OFFSIT
                                                                    < 33>
                                                                            11-May-8
 OFFSET . M86 FORM PITTSBUGH LOCKS FOR OFFSET
                                                                    < 33>
                                                                             8-Ju1-8
 OFFSET, M85 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET
                                                                    < 33>
                                                                            11-May-8
 OFFSET. M84 FORM HLAP ENDS FOR OFFSET
                                                                    < 33>
                                                                            11-May-8
 OFFSET M83 SHEAR CHEETK RADIUS FOR OFFSET
                                                                    < 33>
                                                                             8-Jul-8
 OFFSET . M82 SHEAR SHEETMETAL FOR OFFSET
                                                                    < 33>
                                                                            11-May-8
 OFFSET. M81 MARK OUT WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                            11-Mas-8
 OFFSET.M80 MARK OUT CHEEKS FOR OFFSET
                                                                    < 33>
                                                                            11-May-8
 OFFSET. M69 ASSEMBLE CHEEKS AND WRAPPERS FOR OFFSET
                                                                   < 33>
                                                                            10-May-8
 OFFSET. M68 FORM RADIUS ON WRAPPERS FOR OFFSET
                                                                   < 33>
                                                                            10-May-8
 OFFSET, MAZ POSITION SPACERS IN PITTSBURGH LOCKS FOR OFFST
                                                                   < 33>
                                                                            10-May-8
 OFFSET. M&& FORM FITTSBURGH LOCK ON WRAPPERS FOR OFFSET
                                                                    < 33>
                                                                            10-May-C
                                                                   < 33>
 OFFSET. M65 FORM 90 DEGREE EDGE ON CHEEKS FOR OFFSET
                                                                             -1uL-8
OFFSET M64 FORM LAP ENDS ON CHEEKS AND WRAPPERS FOR OFFET
                                                                   < 33>
                                                                            10-May-8
 OFFSET .M63 SHEAR RADIUS ON CHEEKS FOR OFFSET
                                                                   < 33>
                                                                            10-May-8
 OFFSET, M62 SHEAR SHEETMETAL FOR OFFSET
                                                                   < 33>
                                                                            10-May-8
                                                                   < 33>
 OFFSET: M61 MARK OUT WRAPPERS FOR OFFSET
                                                                            10-May-8
                                                                   < 33>
 OFFSET MAO MARK OUT CHEEKS FOR OFFSET
                                                                            10-May-8
 OFFSET MOS FORM RADIUS ON WRAPPERS FOR OFFSET
                                                                   < 33>
                                                                            26-May-8
 OFFSET, MO4 CUT RADIUS ON CHEEKS FOR OFFSET
                                                                   < 33>
                                                                            26-May-8
 OFFSET MOS SHEAR SHEETMETAL FOR OFFSET
                                                                   < 33>
                                                                            26-May-8
                                                                   < 33>
 OFFSET MO2 MARK OUT WRAPPERS FOR OFFSET
                                                                            26-May-8
                                                                   < 33>
 OFFSET MOT MARK OUR CHEEKS FOR RECTANGULAR OFFSET
                                                                            26-May-8
. OGEE . M49 ASSEMBLE CHEEKS AND WRAPPERS FOR OGEE
                                                                   < 33>
                                                                            12-May-8
 DGEE ... M48 FORM RADIUS ON WRAPPERS FOR OGEE
                                                                   < 33>
                                                                            12-May-8
 OGEE . M47 POSITION SPACERS IN PITTSBURGH LOCKS FOR OGE
                                                                   < 33>
                                                                            12-May-8
 OGEE .M46 FORM PITTSBURGH LOCKS FOR OGEE .....
                                                                   < 33>
                                                                            12-May-8
                                                                  ়< 33>
        145, FORM 90 DEGREE EDGE ON CHEEKS FOR OGEE
 OGEE
                                                                            12-May-8
        .M44 FORM LAP ENDS FOR OGEE
                                                                   < 33>
                                                                            12-May-8
 OGEE
        .M43 SHEAR RADIUS ON CHEEKS FOR OGEE
                                                                   < 33>
                                                                            12-May-E
 DGEE
        . M42 SHEAR SHEETMETALIA
 OGEE
                     BhjTT$$$$$DHHHHHH
                                                         < .3≻
                                                                12-May-83
                                                                   < 33>
 OGEE . M41 MARK OUT WRAPPERS FOR OGEE
                                                                            12-May-8
        .M40 MARK OUT CHEEKS FOR OGEE
                                                                   < 33>
                                                                            12-May-8
OSQ2RN.MZ4 FORM COLLAR FOR SQUARESTO ROUND OFF CENTER
                                                                   < 33>
                                                                            25-May-8
  JSQ2RN.M73 BEND RADIUS FOR SQUARE TO ROUND OFF CENTER
                                                                   < 33>
                                                                            25-May-c
 OSQ2RN.M72 CUT RADIUS FOR SQUARESTO ROUND OFF CENTER 1
                                                                   < 33>
                                                                            25-May-
```

< 33>

25-May-8

OSQ2%N&M71 SHEAR SHEETHETAL FOR SQUARE TO ROUND OFF JENIR